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**HYDROGRAPHIC MEASUREMENTS COLLECTED ABOARD THE NOAA SHIP RONALD H. BROWN, 15 FEBRUARY - 5 MARCH 2012: WESTERN BOUNDARY TIME SERIES CRUISE RB-12-01 (AB1202)**

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December 2013

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NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

Office of Oceanic and  
Atmospheric Research

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## Abstract

This report summarizes the February 15 - March 5, 2012 cruise on the NOAA Ship Ronald H. Brown involving full-water-column CTD, lowered ADCP, and shipboard ADCP profiles conducted within the Florida Straits and east of Abaco Island, Bahamas. At each station, a package consisting of a Seabird Electronics Model 9/11+ CTD O2 system, an RDI 150 kHz Workhorse Lowered Acoustic Doppler Current Profiler, a RDI 300 kHz Workhorse Lowered Acoustic Doppler Current Profiler, and 24 10-liter Niskin bottles, was to be lowered to the bottom. This report includes a description of the calibrations procedures and profiles of pressure, salinity (conductivity), temperature, and dissolved oxygen concentration. Water samples were also collected at various depths and analyzed for salinity and oxygen concentration to aid with CTD calibration. A total of 59 CTD-O2/LADCP stations were occupied and PIES data was downloaded from 5 sites. Mooring operations include recovery and redeployment of four tall moorings with a mixture of microcats and current meters, and five short moorings including a short upward looking ADCP mooring, a 400 m mooring with microcats and current meters, and three bottom landers instrumented with bottom pressure recorders. As part of NOAA contribution to the Global Surface Drifter Program, 15 surface velocity drifters equipped with sea-surface temperature sensors were deployed. A total of 48 XBTs were deployed in 24 simultaneous deployments (for Lockheed Martin/Sippican instrument development testing). Nine stations in the Florida Straits along 27N were occupied with 10-minute neuston net tows (in collaboration with John Lamkin, Southeast Fisheries Science Center).

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## 1 *Introduction*

The Abaco time series began in August 1984 when NOAA extended its Straits of Florida program to include measurements of western boundary current transports and water mass properties east of Abaco, the Bahamas. Since 1986, 40 hydrographic sections have been completed east of Abaco, most including direct velocity observations by Pegasus and/or Lowered Acoustic Doppler Current Profiler (LADCP). Current meter arrays were also maintained from April 1986 to April 1997. A new international program funded by the United Kingdom's Rapid Climate Change Program and the United States National Science Foundation began in March 2004 and is scheduled to end in 2014, however continuation funding to extend the program beyond 2014 is likely. Included in this program is a new deployment of current meter moorings along the Abaco section (the UK segment of the program continues with moorings across to the east edge of the Atlantic basin). Independently, the National Oceanic and Atmospheric Administration began a monitoring program in September 2004 utilizing inverted echo sounder moorings (some including bottom pressure measurements and near-bottom current meters) along the Abaco section. All of these programs are collaborating with scientific analysis and logistics including ship time.

The repeated hydrographic and tracer sampling at Abaco has established a high-resolution record of water mass properties in the Deep Western Boundary Current (DWBC) at 26°N, which for temperature and salinity can be reasonably constructed back to about 1985 (Vaughan and Molinari, 1997; Molinari et al., 1998). Events such as the intense convection period in the Labrador Sea and renewal of classical Labrador Sea Water in the 1980's are clearly reflected in the cooling and freshening of the DWBC waters off Abaco, and the arrival of a strong CFC pulse, approximately 10 years later (e.g. van Sebille et al., 2011). This program is unique in that it is not just a single time series site, but instead is a section from which transport can be directly calculated, of which very few are available in the ocean that approach a decade or more in length.

To achieve the goals of NOAA's strategic plan in terms of understanding the Atlantic Ocean's role in decadal and longer time scale climate variability, these continued time series observations at Abaco are seen as serving three main purposes:

1. Monitoring of the DWBC for watermass and transport signatures related to changes in the strengths and regions of high latitude water mass formation in the North Atlantic. Monitoring watermass properties in the DWBC at key locations is one part of an effort to track decadal changes in large-scale watermass properties.
2. Serving as a western boundary endpoint of a subtropical Meridional Overturning Circulation (MOC) heat flux monitoring system designed to measure the interior dynamic height difference across the Atlantic basin and the associated baroclinic heat transport.
3. Monitoring the intensity of the Antilles current as an index (together with the Florida Current) of inter-annual variability in the strength of the subtropical gyre. Variations in the strength of the subtropical gyre in relation to the North Atlantic Oscillation

(NAO) has been proposed as an important mechanism in the atmosphere-ocean feedback within coupled models (e.g. Latif and Barnett, 1996).

A hydrographic survey consisting of a repeat LADCP/CTD/rosette section in the western North Atlantic was carried out in February–March 2012 (Figure 1). The R/V Ronald H. Brown departed Charleston, SC on 15 February 2012. A total of 59 LADCP/CTD/Rosette stations were occupied, and fifteen surface drifters were deployed. Water samples (up to 23 for each station), LADCP, CTD data were collected on each cast to within 10 m of the bottom. Salinity and dissolved oxygen samples were analyzed from every bottle sampled on the rosette. Mooring operations include recovery and redeployment of four tall moorings with a mixture of microcats and current meters, and five short moorings including a short upward looking ADCP mooring, a 400 m mooring with microcats and current meters, and three bottom landers instrumented with bottom pressure recorders. As part of NOAA contribution to the Global Surface Drifter Program, 15 surface velocity drifters equipped with sea-surface temperature sensors were deployed. A total of 48 XBTs were deployed in 24 simultaneous deployments (Table 7). The cruise ended in Charleston, S.C. on March 5, 2012.

Table 1: Cruise participants of Ronald H. Brown Cruise AB1202, February 15–March 5, 2012.

Name	Responsibility	Affiliation	Nationality
Molly O. Baringer	Principal Investigator, Chief Scientist	NOAA/AOML	USA
Andrew Stefanick	Salinity analysis, CTD operations	NOAA/AOML	USA
Kyle Seaton	Oxygen analysis	UM/CIMAS,	USA
Pedro Pena	Salinity analysis, IES operations	NOAA/AOML	USA
James Hooper	CTD processing	UM/CIMAS	USA
Adam Houk	LADCP processing	UM/RSMAS	USA
David Grant	CTD watch	Teach at Sea	USA
Wes Struble	CTD watch	Teach at Sea	USA
Darren Rayner	Moorings	NOC/Southampton	United Kingdom
Gerard McCarthy	Moorings	NOC/Southampton	Ireland
Aurelie Duchez	Moorings, CTD watch	NOC/Southampton	France
Shane Elipot	Moorings, CTD watch	NOC/Liverpool	France
Jason Scott	Moorings	NOC/Southampton	United Kingdom
Christian Crowe	Moorings	NOC/Southampton	United Kingdom
Colin Hutton	Moorings	NOC/Southampton	United Kingdom
Tom Roberts	Moorings	NOC/Southampton	United Kingdom
Robert McLachlan	Moorings	NOC/Southampton	United Kingdom

Table 2: Western Boundary Time Series Cruise – CTD Cast Summary

Station	Date	Time (GMT)	Latitude	Longitude	Depth
0	02/16/2012	20:58	30.022N	75.234W	1411
1	02/18/2012	06:50	26.499N	69.667W	5504
2	02/18/2012	13:54	26.499N	70.085W	5591
3	02/19/2012	01:32	26.499N	70.498W	5590
4	02/19/2012	07:49	26.500N	70.998W	5586
5	02/19/2012	14:14	26.498N	71.501W	5521
6	02/19/2012	21:25	26.500N	71.999W	5380
7	02/20/2012	03:18	26.500N	72.381W	5282
8	02/20/2012	09:43	26.500N	72.766W	5224
9	02/20/2012	15:27	26.498N	73.131W	5135
10	02/20/2012	21:12	26.499N	73.500W	5046
11	02/21/2012	03:22	26.500N	73.863W	4818
12	02/21/2012	08:39	26.500N	74.233W	4611
13	02/21/2012	13:25	26.500N	74.518W	4562
14	02/21/2012	18:11	26.500N	74.801W	4604
15	02/21/2012	23:20	26.500N	75.083W	4675
16	02/22/2012	03:45	26.500N	75.300W	4709
17	02/22/2012	08:09	26.500N	75.500W	4759
18	02/22/2012	13:05	26.500N	75.706W	4766
19	02/22/2012	17:26	26.503N	75.901W	4823
20	02/22/2012	22:53	26.501N	76.087W	4880
21	02/23/2012	03:09	26.500N	76.218W	4892
22	02/23/2012	07:40	26.501N	76.347W	4922
23	02/23/2012	12:14	26.500N	76.479W	4924
24	02/23/2012	17:08	26.500N	76.565W	4910
25	02/23/2012	21:12	26.508N	76.654W	4609
26	02/24/2012	00:51	26.499N	76.741W	3894
27	02/24/2012	04:07	26.516N	76.831W	1134
28	02/24/2012	06:18	26.525N	76.892W	313
29	02/25/2012	01:10	26.500N	75.704W	4756
30	02/26/2012	01:25	26.501N	76.090W	3554
31	02/28/2012	03:58	26.503N	76.538W	4784
32	02/29/2012	02:37	26.500N	76.743W	3801
33	03/01/2012	01:01	26.499N	76.742W	3553
34	03/01/2012	15:16	26.434N	78.667W	757
35	03/01/2012	17:22	26.336N	78.716W	700
36	03/01/2012	20:22	26.248N	78.762W	519
37	03/01/2012	21:39	26.166N	78.800W	450
38	03/01/2012	23:10	26.067N	78.850W	297
39	03/02/2012	04:38	26.057N	79.250W	376
40	03/02/2012	06:01	26.053N	79.313W	485
41	03/02/2012	07:41	26.053N	79.400W	588
42	03/02/2012	09:23	26.042N	79.473W	667
43	03/02/2012	11:12	26.049N	79.560W	760
44	03/02/2012	13:10	26.049N	79.662W	700
45	03/02/2012	15:04	26.055N	79.763W	597
46	03/02/2012	16:48	26.046N	79.850W	311
47	03/02/2012	18:19	26.051N	79.932W	260
48	03/02/2012	19:52	26.048N	80.000W	244
49	03/02/2012	20:57	26.050N	80.063W	140
50	03/03/2012	04:07	26.996N	79.935W	141
51	03/03/2012	06:00	26.996N	79.867W	257
52	03/03/2012	08:15	26.999N	79.782W	387
53	03/03/2012	10:51	26.989N	79.684W	541
54	03/03/2012	13:06	26.996N	79.617W	638
55	03/03/2012	15:41	26.989N	79.500W	753
56	03/03/2012	17:59	26.994N	79.381W	665
57	03/03/2012	19:46	26.994N	79.287W	613
58	03/03/2012	21:18	27.000N	79.201W	478

### February 2012 WBTS Cruise Track

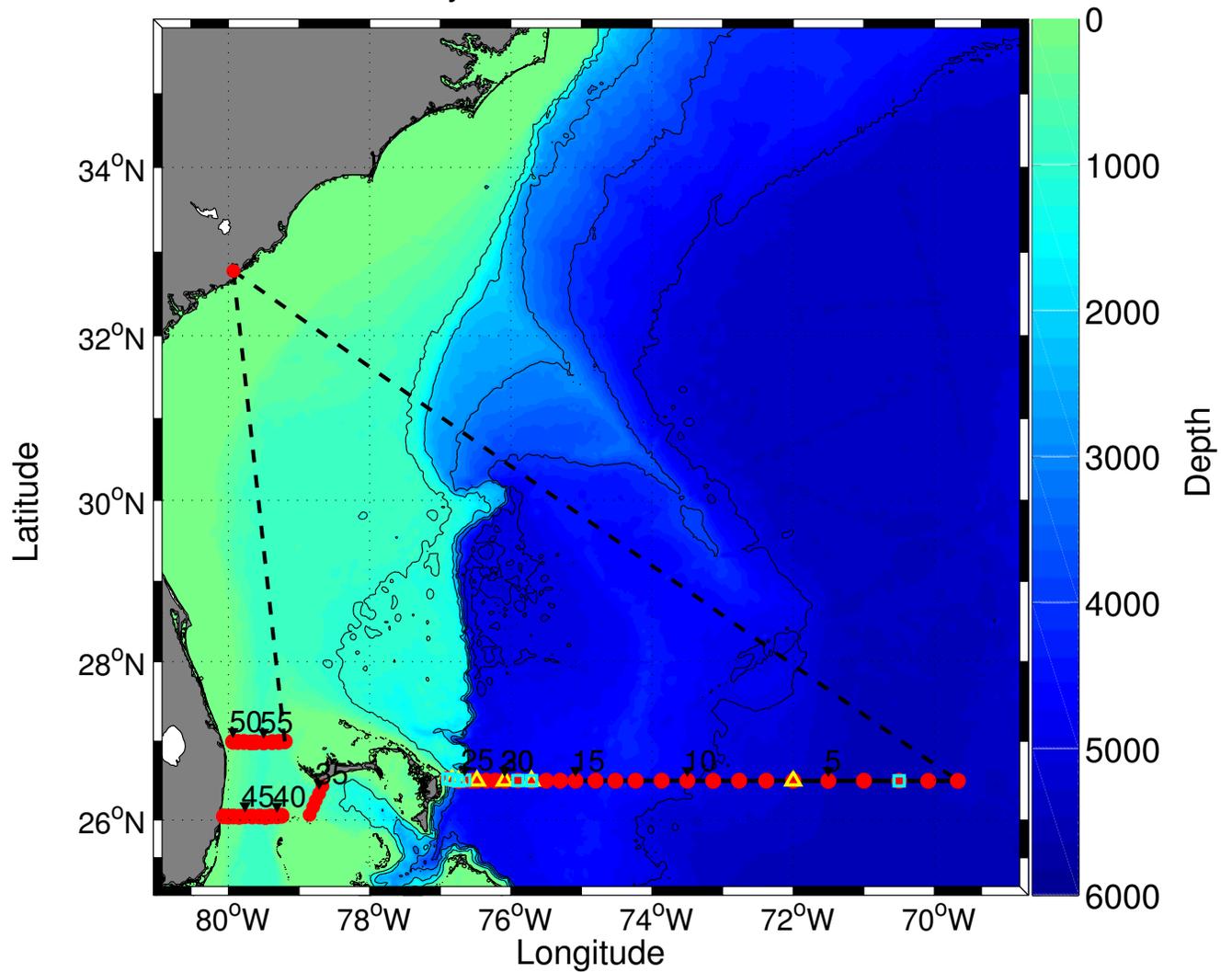


Figure 1: CTD station locations. The landmasses are shaded and the bathymetry is contoured at 1000 m intervals. The red dots are the CTD stations, the cyan squares are the mooring operations, and the yellow triangles are the IES operations.

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## 2 *Cruise Narrative*

The general plan of operations for the cruise was to proceed from Charleston to 69.5°W, performing one test CTD cast in route. We then began the CTD section along 26.5°N working from east to west. Upon completion of the CTD section, six days of mooring work was completed, generally working from east to west towards Abaco Island. During the mooring operations there were a total of four CTD profiles collected at night to facilitate calibration of the sensors on the moorings. Acoustic communication with the NOAA PIES and CPIES moorings were also completed. Upon completion of the mooring work, the ship cleared Bahamian customs in Port Lucia and completed three short CTD sections in the Northwest Providence Channel, 26°N and 27°N in the Straits of Florida. A neuston net was towed along nine stations along 27°N. DIC samples were collected at four stations and 15 surface drifting buoys were deployed.

Departure from Charleston had been scheduled for February 15 at 10:00 am. Shortly after departure from the Charleston River, the ship conducted mandatory safety drills including doing survival suits, etc. The ship executed a complete man over board with a floating "dummy" with precision. After 2 hours of debriefing, the ship got underway for our first station.

We preceded southward crossing the Gulf Stream heading to the far east end of the Abaco line (near 26.5°N and 69.5°W). After 24 hours in route, we stopped and conducted a test cast in 5000 meters of water. All bottles were fired at 1400m. We proceeded to the eastern end of the 26.5°N line, transited to the west and began CTD operations proceeding from east to west along the 26.5°N line.

The mooring work included recovery and redeployment of a total of six moorings and three landers. The mooring work went very smoothly in general, however on the morning of February 26, upon the commencement of the recovery of mooring WBH2 a line became entangled in the starboard thruster. The thruster was immediately disengaged and no permanent damage was sustained. Approximately 21 hours were devoted to the transit to calm waters where diving inspections could be completed safely. The whole incident was handled extremely professionally and calmly, with utmost consideration given to the best way to complete the goals of the project.

Specific summaries of the various data collected include:

1. The autosal used was "Joysey", which functioned normally. Standard water vial 151 was used except for station 10, which used batch number 149.
2. The Oxygen titrations were done using the AOML amperometric titration system. No problems were reported.
3. LADCP measurements were taken using a BB 150 kHz ADCP down-looking (on loan from U. Hawaii, E. Firing and J. Hummond). The CTD frame was equipped with an upward looking 300 kHz ADCP (s/n 13473). On station 16, the upward ADCP failed

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(bad beam) and was replaced by another 300 kHz ADCP (s/n 15329). This ADCP was found to be flooded on station 19 and was replaced with the longer 300 kHz ADCP (13279).

4. A seapoint fluorometer was interfaced on the CTD, but not processed. Raw fluorometry voltages were passed through the processing to 1 db averages.
5. Nine stations in the Florida Straits along 27°N were occupied with 10-minute neuston net tows, which were completed without incidence.
6. A total of 15 surface drifters were deployed throughout the cruise.
7. A total of 48 XBTs were deployed in 24 simultaneous deployments. One XBT data file was lost for an unknown reason.

### ***3 Inverted Echo-Sounder Operations***

An inverted echo sounder consists mainly of a transducer, which can produce sound waves and hear sound waves, and a precise clock. The inverted echo sounders used here at AOML send out a series of 24 - 10kHz or 12kHz sound pulses each hour. These pulses reflect when they hit the ocean surface, and 1-8 seconds later the IES records the precise amount of time between when each pulse is sent out and when the pulse is heard returning to the IES. The median value of the 24 pulses is then taken as the travel time for that hour (multiple pulses are needed to average out the changes in travel time due to waves at the ocean surface and other sources of noise). Because the speed of sound in seawater is dependent on temperature, as the water temperatures above the IES change over time the travel time measurement of the IES changes. The travel time measurement of the IES is combined with other ocean measurements of temperature and salinity in order to estimate full-water-column profiles of temperature, salinity, and density. The result is a time series of profiles of these quantities at each IES site. No major deployments or recoveries were done on this cruise. Telemetry at the five main mooring sites was conducted (see Table 3). A summary of each of the telemetry session is provided below.

#### ***3.1 Site A: PIES 239***

*24 Feb 2012 03:19:01*

We arrived at the site and put the transducers in the water after starting the CTD cast. The telemetry command was sent and a two ping confirmation followed. It was noticed that the data were being sporadically received on both deck units using both the URI matlab script and the java telemetry program. There was 12 kHz noise but the other markers were for the most part missing. This was probably due to it being a shallow site and the large wire angle on the transducer. It was decided that there would not be enough time to finish the telemetry during the CTD cast and that we would have to attempt it during another visit.

---

28 Feb 2012 07:48:55

We returned to site A under better conditions. There seemed to be less of a current therefore the transducer cable had a very small angle. It was also noticed that the transducer cage was connected to its cable via a shackle on one of its sides, causing the transducer to naturally point at an angle. Adding a second shackle to evenly distribute its mass solved this problem. The download went well and there was an almost complete record using the UDB-9000 and the new program.

The UDB-9000 seemed to perform better than the DS-7000. On that site I set the received threshold to 15 for the UDB-9000 and each channel's sensitivity could be individually set. The preferred setting for 12 kHz is sensitivity between -0.5 and -0.1 when there is a lot of noise on that channel. For the DS-7000 we started with a gain of 2, but ended up using a gain of 4 on the first download. On the second download a gain of 2 worked well.

### **3.2 Site A2: CPIES 248**

24 Feb 2012 00:30

After starting the CTD cast we placed the transducers in the water and started the telemetry session. The telemetry command was sent and a two ping response was received. Because of time constraints the telemetry session was left unattended for some time in order carry out a portion of the Sippican XBT experiment. The deck units seemed to be performing nicely and all the data were being received but the download was cut short because of time constraints.

29 Feb 2012 02:42:45

The second download attempt was successfully done using both of the deck units and the new program. This was a particularly good download because the download went well beyond what was needed so there is plenty of overlap. This allowed for more "tweaking" of the UDB-9000 settings and the java telemetry program. The new program was modified to timeout if an expected marker was not received getting it ready for the next marker. This was tested by manually setting the sensitivity to -1 for each channel. This was an important improvement because it allowed for the conversion of more data in the same day that would otherwise be ignored. The raw data is always being recorded, so no data is ever lost completely, but would require post processing. The download was paused and it was decided that we were going to return the following day to download some more from this site.

1 Mar 2012 00:16:24

The telemetry session was started and everything seemed to be working correctly when at 01:00 the instrument stopped sending data. The telemetry session was later restarted with the telemetry command and the CPIES began to send garbage data in 'Burst' telemetry mode. After about 15 minutes the telemetry ended. The telemetry command was sent again and the CPIES began to send data in 'Burst' telemetry mode once again, only this time the values made sense.

---

The preferred instrument settings for the DS-7000 was a gain of 5 (as recommended). For the UDB-9000 the receive threshold was set to 20. The default setting of 0 sensitivity for all channels was adequate for this station. The data was downloaded until at yearday 60.

### ***3.3 Site B: CPIES 133***

The Site B instrument is now only a PIES (i.e. we down-converted it by removing the current meter). However, the firmware still thinks it is a current meter, hence the data must still be downloaded using CrcvPDT (not PrcvPDT , which is typically used for a regular PIES). During site B downloads a new format was tested for the java script that writes the processed on the fly data into the format the matlab program produces. Namely this looks like:

```
359 8.7017 5709850 127.791 204.542 2012 2 23 11 20 2
51 0.4009 1477 0.020 0.173 2012 2 23 11 20 34
```

```
51 0.4018 1461 0.024 0.253 2012 2 23 11 21 4
```

where the program sends one row for the MSB at the start of a block, which is then followed by an LSB row for that same day. The third and following rows are LSB rows for each successive day until you reach the end of a block. For the columns, they are as follows (for a CPIES):

1. Yearday
2. Travel time
3. Pressure
4. Speed
5. Direction
6. Year record was received by deck unit/computer
7. Month record was received by deck unit/computer
8. Day record was received by deck unit/computer
9. Hour record was received by deck unit/computer item Minute record was received by deck unit/computer
10. Second record was received by deck unit/computer

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*23 Feb 2012 11:12:20 GMT*

Threshold was set to 15. Sensitivity set to 0.5 on 11.5 kHz. Ship began needle gunning. The telemetry was noisy. The DS-7000 was set to a gain of 6 (as recommended).

*26 Feb 2012 05:54:14 GMT*

Threshold was set to 22. Sensitivity at 10 kHz was set to -0.03. Deck box had to be power cycled to work on all channels. Final downloaded data looked good.

### ***3.4 Site C***

*Seadata PIES 58*

*PIES 155*

No response from the pies and could not confirm that the seadata was there. We could not confirm that either instrument was there. Deck box EG&G 8011B deck box failed permanently on this cruise for the last time (the only deck box that has ever successfully confirm the Seadata was there). We set both deck boxes to record for several hours to see if we could hear either sample. There was nothing. We believe both instruments have been lost. We sent release commands for PIES 155 and there was no response.

### ***3.5 Site D***

*PIES 134 – can hear, but it cannot hear us*

*PIES 159*

*22 Feb 2012 11:35:11 GMT*

Used DS7000 with MAC and Matlab script side by side and the UDP-9000 set to listen.

*25 Feb 2012 01:56:49 GMT*

Primary download on the MAC using the DS-7000. Used Linux, Mac and Windows 7 with no Matlab script.

*25 Feb 2012 04:42:36 GMT*

Downloaded with Mac and Linux only. Telemeter of PIES 159 was completely successful (downloaded to yearday 116). The PIES 134 was not responsive but I heard it sampling. I used the Windows 7 computer running the new app and I tapped the DS-7000 with my Linux computer while the Matlab script was running. You can see that the converted data on match closely between the two listening to the same deck unit. The UDB is slightly different which is understandable because it's a different deck unit and the clock is more precise. I also noted that on occasion (maybe once every 2 blocks) the year day would be an odd negative value on my app but just fine on the script. I don't know what it is yet but I don't think it's a big deal. I think it's some filtering I'm doing. The nice thing I noticed was that the values were the same from two different deck units which means you can potentially use that to align the two downloads and fill in gaps.

---

### 3.6 Site E: PIES 122

19 Feb 2012 19:54:48 GMT

The telemetry was good with the Matlab script but horrible with the UDP-9000. Did not know how to tweak the box on this one. The UDB-9000 was tweaked and finally towards the end of the session, the data started to be reliably received. One of the tweaks involved switching the UDB-9000 transducer with an older DS-7000 transducer. We believe this worked much better because the transducer points straight down. I recommend that we buy another one of those transducers for the UDB-9000. The telemetry app seems to be working well It makes the telemetry session much easier (particularly when sending commands).

### 3.7 Summary

Overall the UDB-9000 can do the job. It needs work and a bit buggy. We probably do not need to purchase a new transducer, as weights seemed to correct the problem. There is still a possible issue with the transmit power (you can hear that it is not as powerful as the DS-7000), but this may have been a consequence of the transducer weight issue. A comparison of the Matlab downloaded file from site A2 is shown in Figure 2. The median difference between the two complete systems (program plus deck box) for site A2 was 0.0004 s.

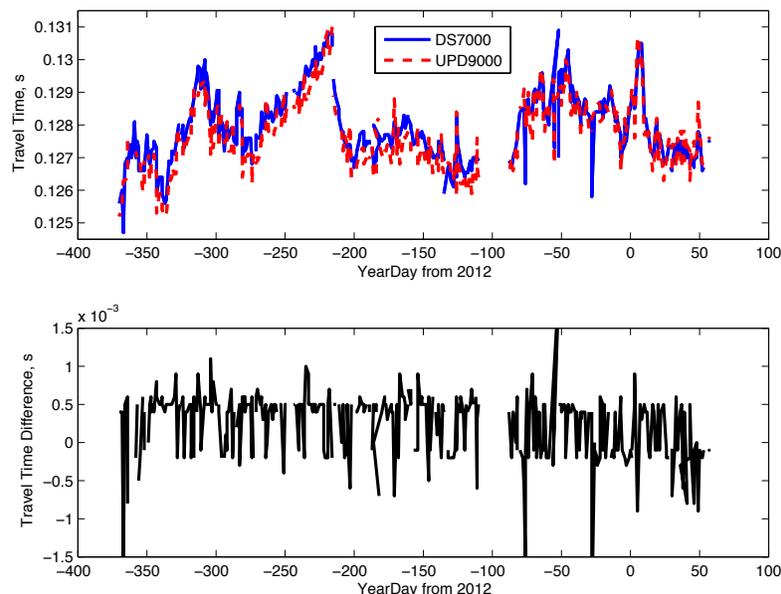


Figure 2: Download of Site A2 from the UDP900 using the real-time java processing script and recorder (red dashed line) compared to the DS700 using the standard Matlab code developed by URI (blue line) and BELOW the difference between these two travel times.

Table 3: Inverted echo-sounder locations and operations.

IES Site	Type	Latitude	Longitude	Operations
A	PIES	026°31.0' N	076°49.90' W	Telemetry
A2	CPIES	026°30.0' N	076°44.60' W	Telemetry
B	PIES	026°29.5' N	076°28.20' W	Telemetry
C	PIES	026°30.1' N	076°05.30' W	No activities
D	PIES	026°30.0' N	075°42.20' W	Telemetry
E	PIES	026°30.0' N	071°59.95' W	Telemetry

## 4 *Mooring Operations*

In total six moorings and three landers were recovered and redeployed for the UK Rapid-MOC project. Positions of the mooring recoveries and deployments are given in Table 4 and Table 5 below (NB: all dates are in UK format dd/mm/yyyy, and all times are in GMT).

Instrumentation recovered from the moorings consisted of 55 SeaBird SBE37 MicroCAT CTD's, five SeaBird SBE53 Bottom Pressure Recorders (BPR's), 1 SeaBird SBE26 BPR, five Aanderaa RCM11 current meters, 22 Nortek Aquadopp current meters and one RDI 75kHz Longranger ADCP. Of these instruments all had complete records except for one which was recovered flooded so yielded no data. The replacement moorings consisted of the same with the exception of three less RCM11's, and three more Norteks.

One mooring recovery was complicated by the upper marker float becoming tangled round the starboard propeller. All the mooring was recovered but the tangle had to be investigated first. This is why the time taken to recover WBH2 is so long in the table below.

The moorings are due for recovery in Spring 2013 along with the landers deployed the previous year, and the landers deployed on this cruise will be due for recovery in Spring 2014.

Mooring operations were conducted from the stern with a double barrel winch and dual reeler system used in conjunction with a floating block raised and lowered from the A-frame through use of the ship's air-tuggers. The ship's crane was used for the lighter anchor deployments, and the trawl winch and A-frame used for the heavier anchors.

Six of the moorings were triangulated after deployment to accurately determine their seabed position. This is important for those moorings that are likely to have fallen back a significant distance along the deployment track or at the sites that have a small landing area (WB2 and WB1 especially).

Prior to deployment cross calibrations of the MicroCAT CTD's were completed by lowering the instruments on the shipboard CTD frame with five-minute bottle stops to allow the slower responding MicroCAT sensors time to stabilize relative to the shipboard CTD. Five casts with up to twelve instruments were combined with the WBTS section, and a

further four casts with up to 17 instruments completed during the nights of the mooring operations. One additional CTD cast in the Florida Straits section was used to post-calibrate one shallowly-deployed MicroCAT CTD that did not log data correctly on the first cast it was on. Acoustic releases were also lowered on the frame during the CTD test cast, the 1<sup>st</sup> CTD station and one of the overnight casts during the mooring work. These were to test the releases at depth prior to their use on moorings.

Table 4: Summary of mooring deployment operations.

Mooring	Latitude (N)	Longitude (W)	Release Date	Release Time	Duration
WB6	26° 29.58'	70° 31.53'	18/02/2012	19:25	2:00
WB4	26° 29.21'	75° 48.56'	25/02/2012	15:41	5:33
WB4L6	26° 21.78'	75° 42.42'	25/02/2012	12:05	1:37
WBH2	26° 28.61'	76° 37.32'	26/02/2012	11:19	5:54
WB2	26° 30.92'	76° 44.57'	27/02/2012	19:42	4:00
WB2L6	26° 30.52'	76° 44.70'	28/02/2012	12:00	1:57
WB1	26° 30.19'	76° 48.91'	29/02/2012	12:06	2:26
WBADCP	26° 31.49'	76° 52.08'	28/02/2012	20:49	0:34
WBAL1	26° 31.50'	76° 52.56'	29/02/2012	19:39	1:25

Table 5: Summary of mooring recovery operations.

Mooring	Anchor Drop		Anchor Seabed		Corrected depth at anchor launch (m)	Date	Time	Duration
	Lat (N)	Lon (W)	Lat (N)	Lon (W)				
WB6	26° 29.69'	70° 31.33'			5490.4	17/02/2012	23:18	0:38
WB4L8	26° 28.94'	75° 42.04'	26° 28.93'	75° 42.24'		23/02/2012	19:30	0:06
WB4	26° 28.70'	75° 41.98'	26° 28.69'	75° 42.16'	4687	23/02/2012	18:29	0:06
WBH2	26° 28.90'	76° 37.44'	26° 28.93'	76° 37.65'	4729	25/02/2012	21:57	2:27
WB2	26° 30.72'	76° 43.98'	26° 30.81'	76° 44.27'	3849	27/02/2012	19:21	4:08
WB2L8	26° 30.59'	76° 44.78'	26° 30.59'	76° 44.78'	3884	27/02/2012	23:00	0:03
WB1	26° 29.97'	76° 44.82'	26° 30.07'	76° 48.89'	1387	28/02/2012	18:52	2:19
WBADCP	26° 31.49'	76° 52.08'			608	27/02/2012	22:05	0:12
WBAL3	26° 31.34'	76° 52.55'			496	28/02/2012	21:31	0:03

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## 5 *Surface Drifters*

Two style surface drifters were deployed from the fan tail on the ship during transits. Positions of the deployments of the surface drifters are given in Table 6.

Table 6: Summary of drifter deployments.

Number	Date	Time	Latitude (N)	Longitude (W)	Type
101912	2/17/16	0:41	31° 59.800'	78° 32.259'	Clearwater
101975	2/17/16	18:49	30° 01.763'	75° 14.703'	Clearwater
101970	2/18/16	16:12	27° 59.207'	71° 59.388'	Clearwater
101831	2/19/16	9:57	26° 29.960'	69° 40.568'	Clearwater
101991	2/20/16	3:39	26° 29.9'	70° 30.2'	Clearwater
107576	2/20/16	23:30	26° 29.990'	72° 00.268'	DBI
101987	2/20/16	23:28	26° 29.981'	71° 59.997'	Clearwater
101826	2/22/16	6:00	26° 29.362'	74° 00.470'	Clearwater
101548	2/22/16	6:01	26° 29.361'	74° 00.516'	Clearwater
107575	2/23/16	20:13	26° 30.212'	75° 55.298'	DBI
107574	2/23/16	20:14	26° 30.212'	75° 55.298'	DBI
101989	3/03/16	11:57	26° 02.601'	79° 33.5'	Clearwater
101569	3/03/16	11:56	26° 02.733'	79° 33.5'	Clearwater
107577	3/04/16	7:45	26° 59.145'	79° 48.021'	DBI
107573	3/04/16	7:45	26° 59.145'	79° 48.021'	DBI

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## 6 *Expendable Bathythermographs*

Two types of Deep Blue probes produced by Lockheed Martin Sippican (LMS) were deployed on this cruise. The probe types are: Standard Deep Blue probes P/N 300681-1, and Experimental Deep Blue probes marked with "E". Two cases (12 probes per case) of each probe type were deployed in pairs. The probe deployments are in support of an LMS effort to develop improvements to the standard XBT probes for the climate study community.

The specific objectives of deploying these Deep Blue probes are to evaluate the improvements in temperature accuracy that can be achieved with the following two changes to the standard XBT probe:

1. Replacement of standard thermistor with specially screened thermistors.
  - Probes marked as experimental with "E."
2. Modification of data processing to compensate for BT wire resistance imbalance.
  - Applied to both standard and experimental probes.

The general plan for the deployments was to deploy during and immediately after a CTD cast with two probes simultaneously. Two systems were set up for the deployments. The deployment locations, times and contemporaneous CTD station are shown in Table 7.

Table 7: Summary of simultaneous XBT deployments

Deployment # Logsheet	XBT #		XBT SS #		CTD #	System 1 Lat		System 1 Time		System 2 Time	
	System 1	System 2	System 1	System 2		System 1	Lat	(local)	(local)	(local)	
1	1182129		1182105		26						
2	1182128	2	1182104		26	76 44.47461	0:04:57		0:04:54		
3	1182103	3	1182127		26	76 44.47363	0:16:28		0:16:26		
4	1182103	4	1182127		26	76 44.62305	2:27:37		2:27:34		
5	1182126	5	1182102		26	76 44.98145	2:31:21		2:31:19		
6	1182101	6	1182125		27	76 49.854	3:49:13		3:49:10		
7	1182124	7	1182100		27	76 49.85303	3:56:41		3:56:38		
9	1182099	9	1182123		27	76 49.87598	4:51:32		4:51:30		
8	1182122	10	1182098		27	76 50.05469	4:55:55		4:55:52		
9	1182121	11	1182097		29	75 42.21191	23:48:42		23:48:40		
10	1182120	12	1182096		29	75 42.20947	23:52:33		23:52:31		
11	1182095	13	1182119		29	75 42.21045	23:57:38		23:57:36		
12	1182094	14	1182118		29	75 42.21143	0:02:35		0:02:33		
13	1182093	15	1182114		30	76 5.30664	0:23:29		0:23:28		
14	1182089	16	1182115		30	76 5.30566	0:26:46		0:26:45		
15	1182092	17	1182116		30	76 5.87402	3:38:25		3:38:24		
16	1182091	18	1182117		30	76 6.23438	3:41:40		3:41:39		
17	1182090	19	1182110		31	76 32.271	2:40:34		2:40:34		
18	1182086	20	1182111		31	76 32.27344	2:43:38		2:43:38		
19	1182087		1182112		31				2:47:32		
20	1182088	21	1182113		31	76 32.27051	2:50:48		2:50:48		
21	1182085	22	1182106		32	76 44.61621	1:34:30		1:34:10		
22	1182084	23	1182107		32	76 44.61328	1:37:35		1:37:15		
23	1182083	24	1182108		32	76 44.6123	1:44:08		1:43:48		
24	1182082	25	1182109		32	76 44.61328	1:47:53		1:47:32		

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## 7 *Standards and Pre-Cruise Calibrations*

The CTD/O<sub>2</sub> system is a real-time data acquisition system with the data from a Sea-Bird Electronics, Inc. (SBE) 9plus underwater unit transmitted via a conducting cable to a SBE 11plus deck unit. The serial data from the underwater unit is sent to the deck unit in RS-232 NRZ format. The deck unit decodes the serial data and sends it to a personal computer for display and storage in a disk file using Sea-Bird Seasave software (version 7.21h).

The SBE 911plus system transmits data from primary and auxiliary sensors in the form of binary numbers equivalent to the frequency or voltage outputs from those sensors. These are referred to as the raw data. The SBE software performs the calculations required to convert raw data to engineering units.

The SBE 911plus system is electrically and mechanically compatible with the standard, unmodified carousel water sampler, also made by Sea-Bird Electronics, Inc. A modem and carousel interface allows the 911plus system to control the operations of the carousel directly without interrupting the flow of data from the CTD.

The SBE 911plus underwater unit is configured with dual standard modular temperature (SBE 3 plus) and conductivity (SBE 4) sensors, which are mounted near the lower end cap. The conductivity cell entrance is co-planar with the tip of the temperature sensor probe. The pressure sensor is mounted inside the underwater unit main housing. A centrifugal pump module flushes water through sensor tubing at a constant rate independent of the CTD's motion to improve dynamic performance. Dual dissolved oxygen sensors (SBE 43) are added to the pumped sensor configuration following the temperature-conductivity (TC) pair. A fluorometer is also attached for measuring biological fluorescence.

Table 8: Equipment used during ABACO-12/02

Instrument	SN	Stations	Use	Pre-Cruise Calibration	Comment
Sea-Bird SBE 32 24-palce Carousel	328531-0031	0-59			
Water Sampler					
Sea-Bird SBE9plus CTD	0363	0-59		7/9/10	
Paroscientific Diquartz Pressure Sensor	95798	0-59		7/9/10	
Sea-Bird SBE3plus Temperature Sensor	5233	0-32	Primary	5/7/11	Shifted warm after sta 5
Sea-Bird SBE3plus Temperature Sensor	5239	0-59	Secondary	6/4/11	
Sea-Bird SBE3plus Temperature Sensor	5237	33-59	Primary	5/18/11	
Sea-Bird SBE4C Conductivity Sensor	3860	0-59	Primary	1/25/12	
Sea-Bird SBE4C Conductivity Sensor	3657	0-59	Secondary	1/25/12	
Sea-Bird SBE43 Dissolved Oxygen Sensor	0730	0-59	Primary	2/1/12	
Sea-Bird SBE43 Dissolved Oxygen Sensor	1266	0-59	Secondary	2/1/12	
Fluorometer	2125	0-59			
Sea-Bird SBE5T Pump	1211	0-7	Primary		failed sta 7
Sea-Bird SBE5T Pump	1227	8-59	Primary		working ok
Sea-Bird SBE5T Pump	3956	0-7	Secondary		working ok
Sea-Bird SBE5T Pump	5946	8-34	Secondary		failed after sta 34
Sea-Bird SBE5T Pump	1666	35-59	Secondary		working ok
Simrad 807 Altimeter		0-59	range - 280m	2.928 scale	
RDI LADCP - 150 kHz Broad Band	U. Hawaii	0-59	Downward		
RDI LADCP - 300 kHz Workhorse	13473	0-16	Upward	bad beam (15-16)	
RDI LADCP - 300 kHz Workhorse	15329	17-19	Upward	bad beam (15-16)	
RDI LADCP - 300 kHz Workhorse	13279	20-59	Upward		

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## 7.1 Conductivity

The flow-through conductivity-sensing element is a glass tube (cell) with three platinum electrodes (Seabird model SBE 4). The resistance measured between the center electrode and the end electrode pair is determined by the cell geometry and the specific conductance of the fluid within the cell, and controls the output frequency of a Wein Bridge circuit. The sensor has a frequency output of approximately 3 to 12 kHz corresponding to conductivity from 0 to 7 Siemens/meter (0 to 70 mmho/cm). The SBE 4 has a typical accuracy/stability of  $\pm 0.0003 \text{ S}\cdot\text{m}^{-1}/\text{month}$  and resolution of  $0.00004 \text{ S}\cdot\text{m}^{-1}$  at 24 scans per second.

Two conductivity sensors were used during ABACO-12/02, serial numbers (s/n) 3860 and 3657. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington during January 2012. The coefficients shown in Table 9 were entered into Seasave using the configuration file.

Conductivity calibration certificates show an equation containing the appropriate pressure-dependent correction term to account for the effect of hydrostatic loading (pressure) on the conductivity cell:

$$C \text{ (Siemens/meter)} = \frac{(g + h * f^2 + i * f^3 + j * f^4)}{[10 * (1 + c_{t_{cor}} * t + c_{p_{cor}} * p)]}$$

where  $g$ ,  $h$ ,  $i$ ,  $j$ ,  $c_{t_{cor}}$ , and  $c_{p_{cor}}$  are the calibrations coefficients shown above,  $f$  is the instrument frequency (kHz),  $t$  is the water temperature (degrees Celsius), and  $p$  is the water pressure (dbar). SEASAVE® automatically implements this equation.

Table 9: Calibration coefficients for the conductivity sensors.

s/n 3860	s/n 3657
January 25, 2011	January 25, 2011
$g = -1.03230471\text{e}+01$	$g = -9.89956684\text{e}+00$
$h = 1.48404691\text{e}+00$	$h = 1.40182457\text{e}+00$
$i = -9.89295485\text{e}-04$	$i = -2.95123653\text{e}-03$
$j = 1.55589301\text{e}-04$	$j = 2.93400396\text{e}-04$
$CP_{cor} = -9.5700\text{e}-08$	$CP_{cor} = -9.5700\text{e}-08$
$CT_{cor} = 3.2500\text{e}-06$	$CT_{cor} = 3.2500\text{e}-06$

## 7.2 Temperature

The temperature-sensing element is a glass-coated thermistor bead, pressure protected by a stainless steel tube. The sensor output frequency ranges from 5–13 kHz corresponding to temperature from  $-5$  to  $35^\circ\text{C}$ . The output frequency is inversely proportional to the square

root of the thermistor resistance, which controls the output of a patented Wien Bridge circuit. The thermistor resistance is exponentially related to temperature. The SBE 3 thermometer has a typical accuracy/stability of  $\pm 0.004^\circ\text{C}$  per year and resolution of  $0.0003^\circ\text{C}$  at 24 samples per second. The SBE 3 thermometer has a fast response time of 0.070 seconds.

Three temperature sensors (SBE 3plus) were used during ABACO-12/02, serial numbers (s/n) 5233, 5239 and 5237. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington during April and May 2012. The following coefficients were entered into SEASAVE® using the configuration file (Table 10). SEASAVE® automatically implements the equation below and converts between ITS-90 and IPTS-68 temperature scales as desired. The Temperature (ITS-90) is computed from  $g$ ,  $h$ ,  $i$ ,  $j$  and  $f_0$  and  $f$  is the instrument frequency (kHz) coefficients as follows:

$$T (^{\circ}\text{C}) = \frac{1}{\left\{g + h * \left[\ln\left(\frac{f_0}{f}\right)\right] + i * \left[\ln^2\left(\frac{f_0}{f}\right)\right] + j * \left[\ln^3\left(\frac{f_0}{f}\right)\right]\right\}} - 273.15$$

Table 10: Calibration coefficients for the temperature sensors.

s/n 5233	s/n 5239	s/n 5237
May 07, 2011	June 04, 2011	May 18, 2011
$g = 4.4027216\text{e-}03$	$g = 4.40414724\text{e-}03$	$g = 4.41018725\text{e-}03$
$h = 6.80353611\text{e-}04$	$h = 6.78966995\text{e-}04$	$h = 6.79899461\text{e-}04$
$i = 2.84869886\text{e-}05$	$i = 2.83057357\text{e-}05$	$i = 2.85192728\text{e-}05$
$j = 2.13822364\text{e-}06$	$j = 2.18830787\text{e-}06$	$j = 2.20370495\text{e-}06$
$f_0 = 1000.0$	$f_0 = 1000.0$	$f_0 = 1000.0$

### 7.3 Pressure

The Paroscientific series 4000 DigiQuartz high pressure transducer uses a quartz crystal resonator whose frequency of oscillation varies with pressure induced stress measuring changes in pressure as small as 0.01 parts per million with an absolute range of 0 to 10,000 psia (0 to 6885 dbar). Repeatability, hysteresis and pressure conformance are 0.002% of full-scale. The nominal pressure frequency (0 to full scale) is 34 to 38 kHz. The nominal temperature frequency is  $172 \text{ kHz} \pm 50 \text{ ppm}/^\circ\text{C}$ .

The pressure sensor utilized during ABACO-12/02 was s/n 95798. Pre-cruise sensor calibrations were performed at Sea-Bird Electronics, Inc. in Bellevue, Washington on July 09, 2010 (95798). The following coefficients (Table 11) were entered into SEASAVE® using the configuration file:

Pressure coefficients are first formulated into:

$$\begin{aligned} c &= c_1 + c_2 * U + c_3 * U^2 \\ d &= d_1 + d_2 * U \\ t_0 &= t_1 + t_2 * U + t_3 * U^2 + t_4 * U^3 + t_5 * U^4 \end{aligned}$$

where  $U$  is temperature in degrees Celsius. Pressure is computed according to:

$$P (psia) = c * \left(1 - \frac{t_0^2}{t}\right) * \left[1 - d * \left(1 - \frac{t_0^2}{t}\right)\right]$$

where  $t$  is pressure period ( $\mu s$ ). SEASAVE® automatically implements this equation.

Table 11: Calibration coefficients for the pressure sensor.

s/n 95798
July 07, 2010
$c_1 = -4.698871e+04$
$c_2 = 6.928599e-01$
$c_3 = 1.264330e-02$
$d_1 = 3.832000e-02$
$d_2 = 0.000000e+00$
$t_1 = 2.996944e+01$
$t_2 = -1.348850e-04$
$t_3 = 3.953500e-06$
$t_4 = 2.102830e-09$
$t_5 = 0.000000e+00$
Slope = 0.99998
Offset = -1.3878
AD590M = 1.14100e-02
AD590B = -8.42813e+00

## 7.4 Dissolved Oxygen

The SBE 43 dissolved oxygen sensor uses a membrane polarographic oxygen detector (MPOD). Oxygen sensors determine the dissolved oxygen concentration by counting the number of oxygen molecules per second (flux) that diffuse through a membrane. By knowing the flux of oxygen and the geometry of the diffusion path, the concentration of oxygen can be computed. The permeability of the membrane to oxygen is a function of temperature and ambient pressure. In order to minimize the errors in the oxygen measurement due to the temperature differences between the water and the oxygen sensor, a temperature compensation is calculated using a temperature measured near the active surface of the sensor. The interface electronics output voltages proportional to the temperature-compensated oxygen current. Initial computation of dissolved oxygen in engineering units is done in the software. The

range for dissolved oxygen is 120% of surface saturation in all natural waters, fresh and salt, and the nominal accuracy is 2% of saturation.

Under extreme pressure, changes can occur in gas permeable Teflon membranes that affect their permeability characteristics. Some of these changes (plasticization and amorphous/crystallinity ratios) have long time constants and depend on the sensor's time-pressure history. These slow processes result in hysteresis in long, deep casts. The hysteresis correction algorithm operates through the entire data profile and corrects the oxygen voltage values for changes in membrane permeability as pressure varies. At each measurement, the correction to the membrane permeability is calculated based on the current pressure and how long the sensor spent at previous pressures.

Sea-Bird has implemented an optional hysteresis correction for dissolved oxygen data. The correction algorithm requires a continuous time series of data, with no temporal data gaps (although a continuous time series is necessary, a constant sampling interval is not required). Prior to processing, do not remove any data from the downcast or upcast (if to be used), other than a surface soak at the beginning of the downcast.

Oxygen sensors 0730 and 1266 were used during ABACO-12/02. The oxygen coefficients (Table 12) were entered into SEASAVE® using the configuration seen in 7.4.

The use of these constants in linear equations of the form  $I = mV + b$  and  $T = kV + c$  yield sensor membrane current and temperature (with maximum error of about 0.5 °C) as a function of sensor output voltage.

Dissolved oxygen concentration is calculated according to:

$$O \text{ (ml/l)} = \left\{ Soc * (V + V_{offset} + tau(T, S) * \frac{\delta v}{\delta t}) + p1 * station \right\} \\ * (1.0 + A * T + B * T^2 + C * T^3) * OXSAT(T, S) * e^{E * (\frac{P}{K})}$$

where  $Soc$ ,  $V_{offset}$ ,  $tau$ ,  $A$ ,  $B$ ,  $C$ ,  $E$  and  $p1$  are the calibration coefficients shown above and  $V$  is the instrument voltage ( $V$ ).  $T$ ,  $S$  and  $P$  are the temperature, salinity and pressure measured by the CTD.  $K$  is the temperature in the absolute scale ( $K$ ),  $\delta v/\delta t$  is the oxygen voltage time derivative,  $station$  is the station number, and  $OXSAT$  is the oxygen saturation value calculated according to (Weiss, 1970):

$$OXSAT(\theta, S) = \exp \left\{ A_1 + A_2 * \left( \frac{100}{\theta} \right) + A_3 * \ln \left( \frac{\theta}{100} \right) + A_4 * \left( \frac{\theta}{100} \right) \right. \\ \left. + S * \left[ B_1 + B_2 * \left( \frac{\theta}{100} \right) + B_3 * \left( \frac{\theta}{100} \right)^2 \right] \right\}$$

where  $\theta$  is the absolute temperature (K); and

$$\begin{aligned}
A_1 &= -173.4292 & B_1 &= -0.033096 \\
A_2 &= 249.6339 & B_2 &= 0.014259 \\
A_3 &= 143.3483 & B_3 &= -0.00170 \\
A_4 &= -21.8492.
\end{aligned}$$

SEASAVE® automatically implements this equation.

The hysteresis correction is calculated, using the oxygen voltages, with the following algorithm:

$$\begin{aligned}
D &= 1 + H_1 * (e^{\left(\frac{P(i)}{H_2}\right)} - 1) \\
C &= e\left(-1 * \left(\frac{Time(i) - Time(i - 1))}{H_3}\right)\right) \\
O_V(i) &= O_{volt}(i) + V_{offset} \\
O_{newvolts}(i) &= a * \frac{a}{D} \\
O_{finalvolts}(i) &= O_{newvolts}(i) - V_{offset}
\end{aligned}$$

Where:

$i$  = indexing variable (must be a continuous time series to work; can be performed on bin averaged data), where  $i = 1:end$  (end is largest data index point plus 1).

$P(i)$  = pressure (decibars) at index point  $i$ .

$Time(i)$  = time (seconds) from start of index point  $i$ .

$O_{volt}(i)$  = SBE 43 oxygen voltage output directly from sensor, with no calibration or hysteresis corrections, at index point  $i$ .

$V_{offset}$  = correction for an electronic offset that is applied to voltage output of sensor.  $V_{offset}$  correction is always negative (see factory calibration sheet for this coefficient).  $V_{offset}$  is added to raw voltages prior to hysteresis correction. At end of hysteresis corrections,  $V_{offset}$  is removed prior to data conversion using SBE 43 calibration equation (see  $O_{finalvolts}(i)$ ).

$O_V(i)$  = dissolved oxygen voltage value with  $V_{offset}$  correction (made prior to hysteresis correction) at index point  $i$ .

$D$  and  $C$  are temporary variables used to simplify expression in processing loop.

$H_1$  = amplitude of hysteresis correction function. Default = -0.033, range = -0.02 to -0.05 (varies from sensor to sensor).

$H_2$  = function constant or curvature function for hysteresis. Default = 5000.

$H_3$  = time constant for hysteresis (seconds). Default = 1450, range = 1200 to 2000 (varies from sensor to sensor).

$O_{newvolts}(i)$  = hysteresis-corrected oxygen value at index point  $i$ .

$O_{finalvolts}(i)$  = hysteresis-corrected oxygen value at index point  $i$  with  $V_{offset}$  removed.

This step is necessary prior to computing oxygen concentration using SBE 43 calibration equation.

Table 12: Calibration coefficients for the dissolved oxygen sensors.

s/n 0730	s/n 1266
February 1, 2012	February 1, 2012
Soc = 0.4946	Soc = 0.5110
Voffset = -0.5102	Voffset = -0.5418
Tau20 = 1.16	Tau20 = 1.13
A = -3.5069e-03	A = -3.0146e-03
B = 1.3800e-04	B = 1.3378e-04
C = -2.6719e-06	C = -2.6688e-06
$E_{nominal} = 0.036$	$E_{nominal} = 0.036$

## 7.5 Fluorometer

The fluorometer is an optical sensor used to detect chlorophyll-a fluorescence. The fluorescence signal is an indicator of concentrations of chlorophyll and an active phytoplankton biomass. This allows for the tracking of the abundance and variability of biology in the water column. The fluorometer data collected is not processed, but raw voltages are passed through the Seabird Data Processing program. The raw voltages are not displayed here, but are available as part of the 1db pressure averaged data.

## 8 Data Acquisition

CTD/O<sub>2</sub> measurements were made using a SBE 9plus CTD with dual sensor configuration. Underwater electronic components consisted of a Sea-Bird Electronics (SBE) 9 plus CTD s/n 09P10779-0360 with dual pumps and the following sensors: dual temperature (SBE3), dual conductivity (SBE4), dual dissolved oxygen (SBE43), and a Simrad 807 altimeter. The CTDs supplied a standard Sea-Bird format data stream at a data rate of 24 frames/second. The other underwater electronic components consisted of RDI LADCP's, and various pingers. The SBE9plus CTD was connected to the SBE32 24-place pylon providing for single-conductor sea cable operation. Power to the SBE9plus CTD, SBE32 pylon, auxiliary sensors, and altimeter was provided through the sea cable from the SBE11plus deck unit in the computer lab. The rosette system was suspended from a UNOLS-standard three-conductor 0.322" electro-mechanical sea cable. A single sea cable termination for each winch served the entire cruise.

The CTD was mounted vertically in to the bottom center of the 24-position frame. All SBE4 conductivity and SBE3 temperature sensors and their respective pumps were mounted vertically as recommended by SBE. One Niskin bottle was removed to accommodate the upward looking ADCP, resulting in a maximum of 23 water sample depths. The CTD was outfitted with dual pumps. Primary temperature, conductivity, and dissolved oxygen were plumbed on one pump circuit and secondary temperature and conductivity on the other. Pump exhausts were attached to outside corners of the CTD frame and directed downward.

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The sets were placed as mirror images to each other mounted low in the CTD main housing with the intakes approximately 6-8 inches apart. The TC pairs were monitored for calibration drift and shifts by examining the differences between the two pairs on each CTD and comparing CTD salinity values with bottle salinity measurements. The altimeter was mounted on the inside of a support strut adjacent to the bottom frame ring. The LADCP's were vertically mounted inside the bottle rings with one 150 kHz transducer (on loan from U. Hawaii) pointing down, the other 300 kHz transducer pointing up. The upward looking ADCP required the removal of Niskin bottle 12 from the frame.

The CTD data acquisition system consisted of an SBE-11plus (V1) deck unit and a networked generic PC workstation running Windows 2000. SBE Seasave software version 7.21f was used for data acquisition and to close bottles on the rosette.

The deck watch prepared the rosette typically within a few minutes prior to each cast. All valves, vents, and lanyards were checked for proper orientation. The bottles were cocked and all hardware and connections rechecked. Once stopped on station, the LADCP was turned on and syringes were removed from the CTD sensor intake ports. As directed by the deck watch leader, the CTD was powered-up and the data acquisition system started.

The console watch initiated CTD deployments after the ship stopped on station. The watch maintained a console operations log containing a description of each deployment, a record of every attempt to close a bottle and any pertinent comments.

The deck watch leader directed the winch operator to raise the package, the squirt boom and rosette were extended outboard, and the package quickly lowered into the water and submerged to 10 meters of wire out. No tag-lines were necessary for either deployments or recoveries during this cruise. The CTD sensor pumps were configured with a 60 second startup delay. The CTD console operator waited for the CTD sensor pumps to turn on, waited an additional 60 seconds for sensors to stabilize (all together about 2 minutes), then directed the winch operator to bring the package close to the surface, pause for typically 10 seconds, hitting "Mark Scan" and begin the descent. The profiling rate was no more than 30 m/min to 50 m, no more than 45 m/min to 200 m, and no more than 60 m/min deeper than 200 m depending on sea cable tension and the sea state.

The console watch monitored the progress of the deployment and quality of the CTD data through interactive graphics and operational displays. Additionally, the watch created a sample log for the deployment that would be later used to record the correspondence between rosette bottles and analytical samples taken. The altimeter channel, CTD pressure, wire-out and bathymetric depth were all monitored to determine the distance of the package from the bottom, usually allowing a safe approach to within 10 m.

On the up cast, the winch operator was directed to stop at each bottle trip depth. The CTD console operator waited 30 seconds before tripping a bottle using a "point and click" graphical trip button. The data acquisition system responded with trip confirmation messages and the corresponding CTD data in a rosette bottle trip window on the display. All

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tripping attempts were noted on the console log. The console watch then directed the winch operator to raise the package up to the next bottle trip location. After the last bottle was tripped, the console watch directed the deck watch to bring the rosette on deck. Once on deck, the console watch terminated the data acquisition, turned off the deck unit, and assisted with rosette sampling.

Upon completion of the cast, sensors were flushed and stored with deionized water. The bottles and rosette were examined before samples were taken, and anything unusual noted on the sample log. Niskin bottles were then sampled first for oxygen and then salinity.

O-rings were changed as necessary and bottle maintenance was performed each day to insure proper closure and sealing. Valves were inspected for leaks and repaired or replaced as needed.

## ***8.1 System Problems***

A test of the CTD system on deck showed bottle 14 would not fire. Bottle 14 was the previous location of the upward looking ADCP. Manual exercise of the teeth corrected the problem. Bottle 18 did not fire during the test cast, but manual exercise of the pylon tooth corrected the problem.

Prior to the cruise, both winches were inspected by Markey, the speed control removed, overhauled and replaced. The wire on the forward winch was also removed and respooled using a new leader shell. Both winches were believed to be in proper working condition. Stations 0 and 1 had excessive modulo errors on the aft winch, however. Station 2 was conducted on the forward winch, which broke on the upcast (at something close to 2000m depth). It was determined that the new speed control motor had broken (the bolt was sheared off). The engineering staff on the Brown quickly by-passed this winch control so that the CTD could continue to the surface. Station 3 was conducted on the aft winch with approximately 100 modulo errors, until the ships electronics technician, Clay Norfleet, attempted a mid-cast fix of the grounding on the winch using temporary alligator clamps. Only a few modulo errors were recorded after this fix. The next day, a grounding strap was quasi-permanently attached to the winch frame to ground to the deck. In general, the fix required attaching the 'ground side' of the signal cable, removing the potential of a floating ground (in the J box on the frame and on the drum). The aft winch is wired using two of the three internal conductors for the signal, using one as the ground (not using the shield as a ground). The J-boxes both on the winch drum and on the winch body were grounded and winch body grounded to the hull. A more permanent grounding should be made in the yard.

The forward winch was tested on station 32. Upon deployment, the CTD package skipped over the deck, landed in the water and started a free fall to depth. After 40 m, the winch operator Leslie hit the emergency stop and successfully halted the CTD's descent. It was found that the compression brake that had been disengaged earlier for testing after the re-

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placement of the controller motor did not re-engage automatically. A manual re-engagement of the brake was necessary after recovery of the CTD on deck. The cast was restarted successfully with no further incident.

Station 0, 1 and 3 all require substantial despiking and filtering. After station 5, the primary temperature sensor shifted relative to the secondary sensor by -0.0015 in the surface and +0.001 at 5000m (shifting warm in the deep water). Station 7 showed clear sensor offsets at the start of the cast. It was later determined that the primary sensor pump had failed and both pumps were replaced prior to station 8. On station 29, the primary conductivity shifted fresh 0.0005 relative to the secondary sensor, but returned to "normal" on subsequent stations. Before station 33, the primary temperature sensor was replaced. On station 35, the secondary pump was replaced and the cast recommenced. No other CTD instrument related problems were noted.

## ***8.2 Data Acquisition***

The basic CTD/hydrographic measurements consisted of salinity and dissolved oxygen measurements made from water samples taken on CTD/rosette casts, plus pressure, temperature, salinity, dissolved oxygen, and a Seapoint transmissometer from CTD profiles. A total of 59 CTD/rosette casts were made, usually to within 10 m of the bottom. The bottle distributions of water samples taken are shown in Figure 3-6.

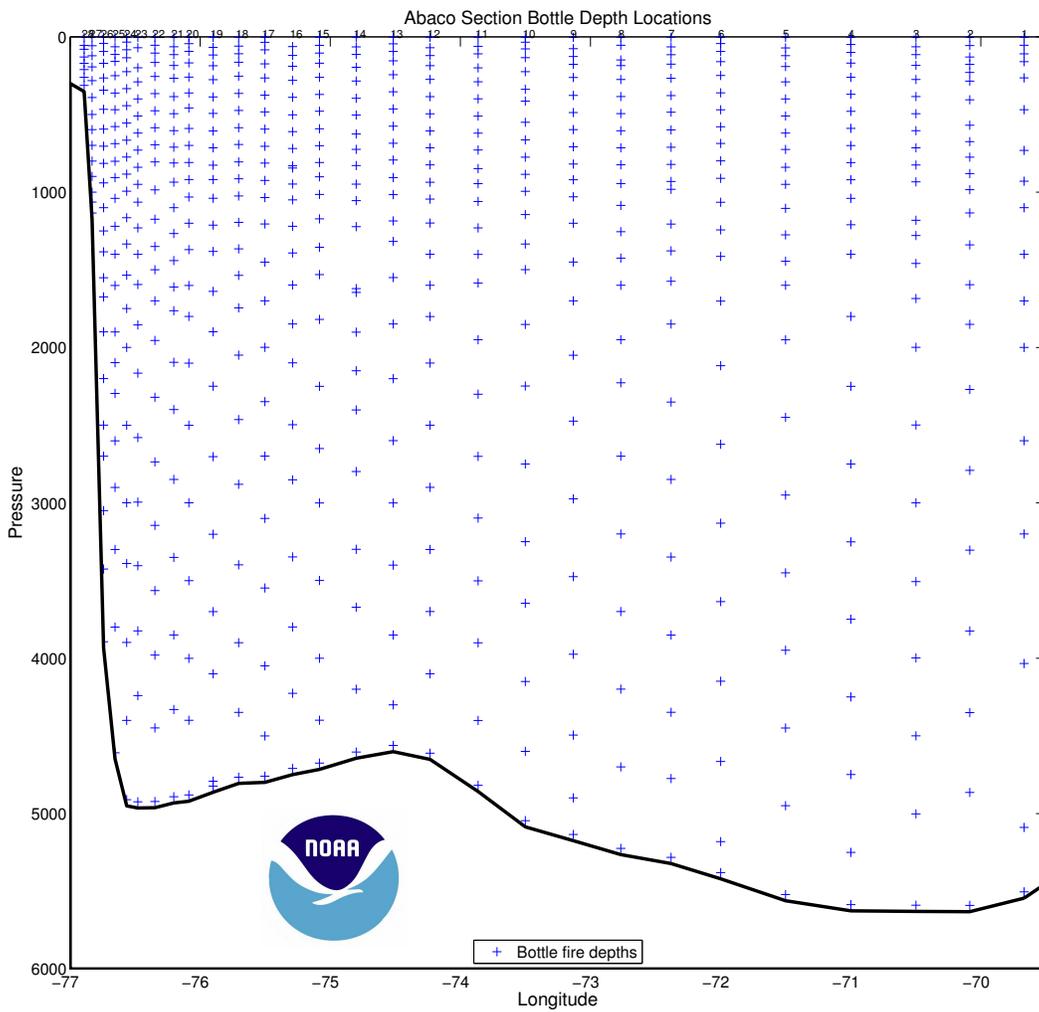


Figure 3: Bottle locations for 26.5°N Deep Western Boundary Current section east of Abaco Island.

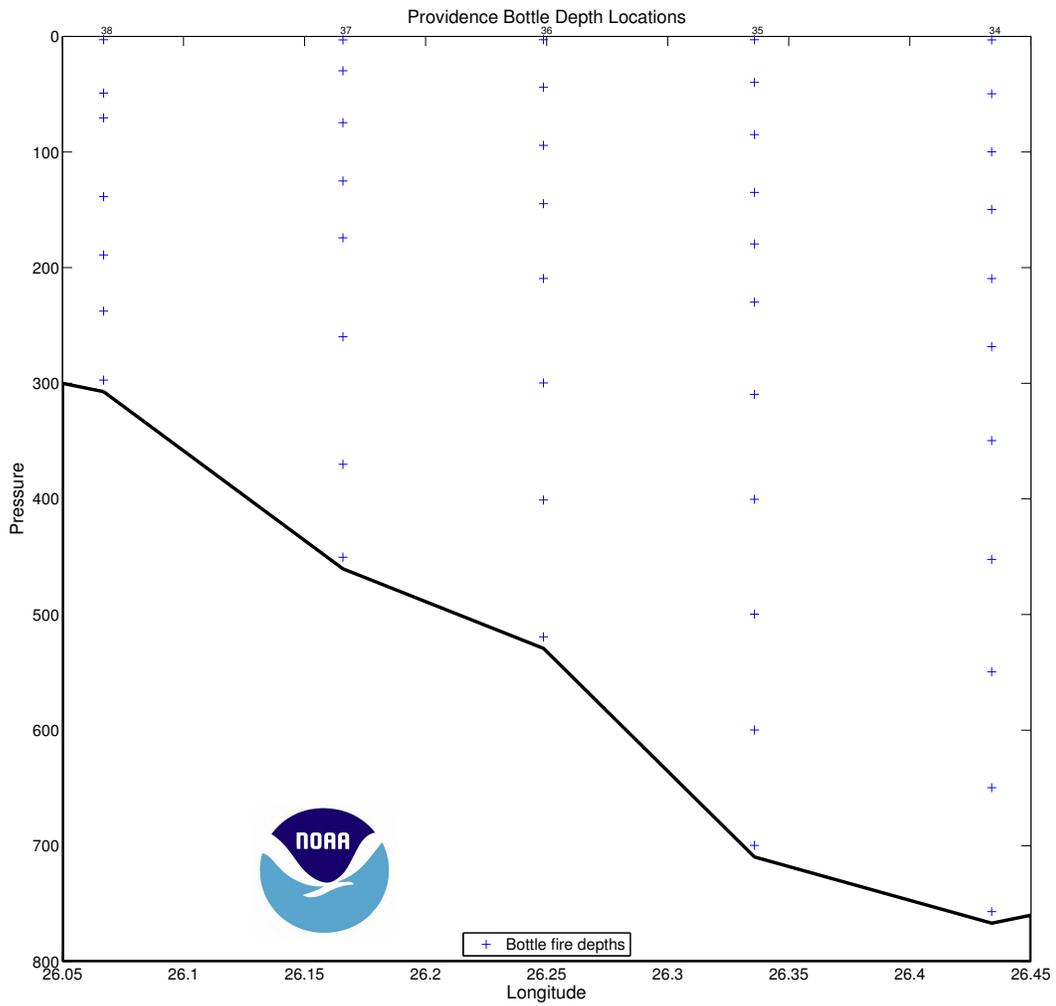


Figure 4: Bottle locations for along the Northwest Providence Channel section.

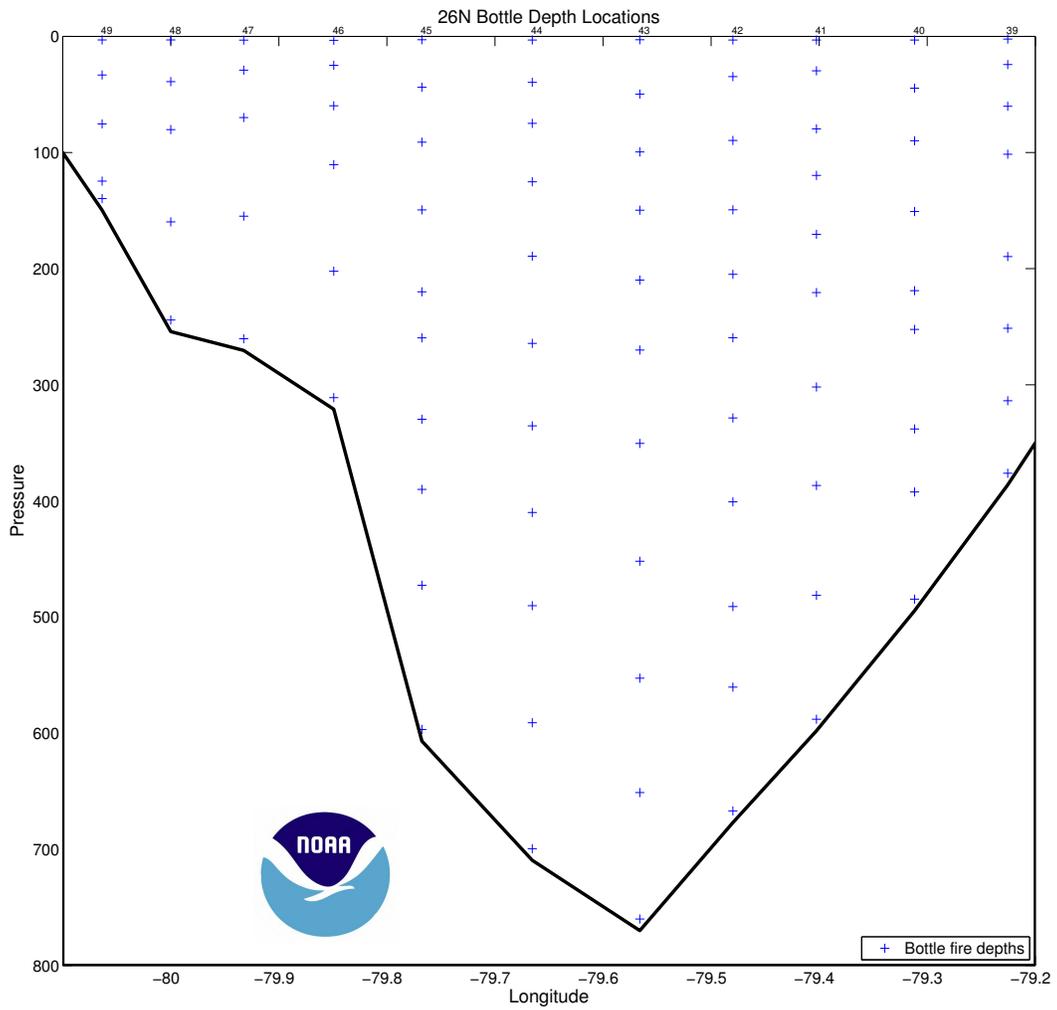


Figure 5: Bottle locations for 26°N section in the Florida Straits.

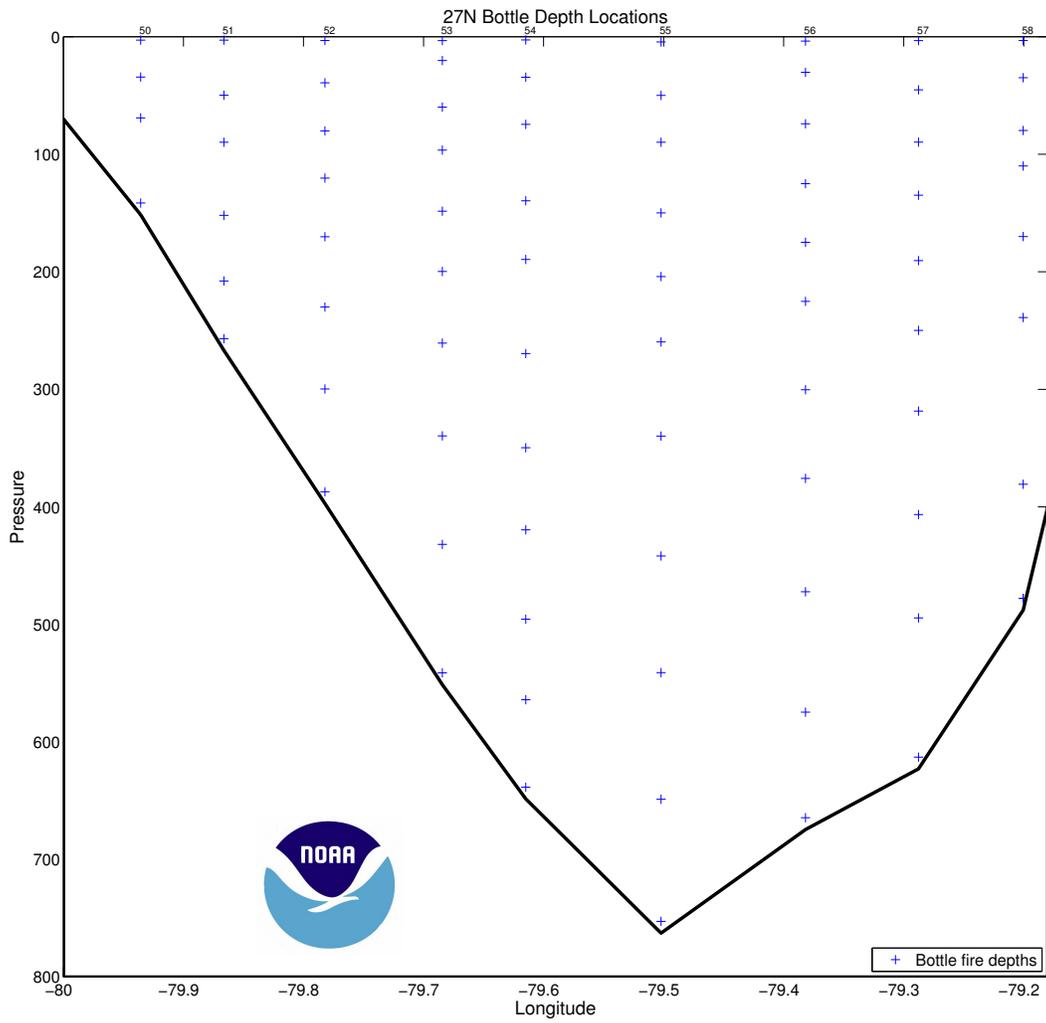


Figure 6: Bottle locations for 27°N section in the Florida Straits.

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### 8.3 Shipboard CTD Data Processing

Shipboard CTD data processing was performed automatically at the end of each deployment using SEABIRD SBE Data Processing version 7.21f and AOML Matlab processing software. The raw CTD data and bottle trips acquired by SBE Seasave on the Windows 2000 workstation were copied onto the CTD-PROC workstation, and processed to a 1-dbar series and a 1-second time series. Bottle trip values were extracted and a 1-decibar (dbar) down cast pressure series created.

Raw data are acquired from the instruments and are stored unmodified. The conversion module DATCNV uses the instrument configuration and pre-cruise factory calibration coefficients to create a converted engineering unit data file that is utilized by all SBEDataProc® post processing modules. Unless otherwise noted, all calibration parameters given are factory default values recommended by Sea Bird Electronics, Inc. The following is the SBEDataProc® processing module sequence and specifications for primary calibrated data (1 dbar averages) uses the following routines in order for reduction of CTD/O<sub>2</sub> data from this cruise:

1. DATCNV converts raw data into engineering units and creates a .ROS bottle file. Both down and up casts were processed for scan, elapsed time(s), pressure, t0 ITS-90 C, t1 ITS-90 C, c0 mS/cm, c1 mS/cm, and oxygen voltage V, oxygen voltage V 2, altimeter, optical sensor, oxygen umol/kg and oxygen 2 umol/kg, oxygen mll/l, oxygen 2 ml/l, oxygen dv/dt, oxygen dv/dt 2. Optical sensor data were not carried through the processing stream. MARKSCAN was used to determine the number of scans acquired on deck and while priming the system to exclude these scans from processing.
2. ALIGNCTD aligns temperature, conductivity, and oxygen measurements in time relative to pressure to ensure that derived parameters are made using measurements from the same parcel of water. Primary and secondary conductivity were automatically advanced by 0.073 seconds. Align adjusted these advances to 0.006 for the primary sensor and +0.063 for the secondary sensor (stations 8-59) and 0.083 for station 0-7 (primary sensor).
3. BOTTLESUM creates a summary of the bottle data. Bottle position, date, and time were output automatically. Pressure, temperature, conductivity, salinity, oxygen voltage and preliminary oxygen values were averaged over a 5 second interval.
4. WILDEDIT computes the standard deviation of 100 point bins, and then makes two passes through the data. The first pass flags points that differ from the mean by more than 2 standard deviations. A new standard deviation is computed excluding the flagged points and the second pass marks bad values greater than 20 standard deviations from the mean. For this data set, data were kept within a distance of 100

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of the mean (i.e., all data).

5. FILTER applies a low pass filter to pressure with a time constant of 0.15 seconds. In order to produce zero phase (no time shift), the filter is first run forward through the file and then run backwards through the file.
6. CELLTM uses a recursive filter to remove conductivity cell thermal mass effects from measured conductivity. In areas with steep temperature gradients the thermal mass correction is on the order of 0.005 PSS-78. In other areas the correction is negligible. The value used for the thermal anomaly amplitude (alpha) was  $0.03^{\circ}\text{C}$ . The value used for the thermal anomaly time constant ( $1/\text{beta}$ ) was  $7.0^{\circ}\text{C}$ .
7. LOOPEDIT removes scans associated with pressure slowdowns and reversals. If the CTD velocity is less than 0.25 m/s or the pressure is not greater than the previous maximum scan, the scan is omitted.
8. DERIVE uses 1 dbar averaged pressure, temperature, and conductivity to compute primary and secondary salinities.
9. BINAvg averages the data into 1 dbar bins. Each bin is centered on an integer pressure value, e.g., the 1 dbar bin averages scans where pressure is between 0.5 dbar and 1.5 dbar. There is no surface bin. The number of points averaged in each bin is included in the data file.
10. STRIP removes the computed oxygen variable.
11. TRANS converts the binary data file into ASCII format.
12. SPLIT separates the cast into upcast and downcast values.

Package slowdowns and reversals owing to ship roll can move mixed water in tow to in front of the CTD sensors and create artificial density inversions and other artifacts. In addition to Seasoft module LOOPEDIT, a program computes values of density locally referenced between every 1 dbar of pressure to compute  $N^2$  and linearly interpolates temperature, conductivity, and oxygen voltage over those records where  $N^2$  is less than or equal to  $-1 \times 10^{-5} \text{ s}^{-2}$ . These data were retained but flagged as questionable in the final WOCE formatted files.

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Final calibrations are applied to delooped data files. ITS-90 temperature, salinity, and oxygen are computed, and WOCE quality flags are created.

CTD data were examined at the completion of each deployment for clean corrected sensor response and any calibration shifts. As bottle salinity and oxygen results became available, they were used to refine shipboard conductivity and oxygen sensor calibrations.

A total of 59 casts were processed (including 1 test casts).

## ***8.4 CTD Calibration Procedures***

Laboratory calibrations of the CTD pressure, temperature, and conductivity sensors were all performed at SBE. The calibration dates are listed in Table 8.

Secondary temperature, conductivity and dissolved oxygen (T2, C2 and DO2) sensors served as calibration checks for the reported primary sensors. During the cruise, it was determined that the secondary sensor behaved more stably during the cruise.

In-situ salinity and dissolved O<sub>2</sub> check samples collected during each cast were used to calibrate the conductivity and dissolved O<sub>2</sub> sensors.

### ***8.4.1 Salinity Analysis***

A single Guildline Autosol, model 8400B salinometer (S/N 60843, nicknamed Joysey), located in salinity analysis room, was used for all salinity measurements. The autosol was the same one used for Clivar A10 (was filled, powered on and ready to go). The salinometer readings were logged on a computer using Ocean Scientific International's logging hardware and software. The Autosol's water bath temperature was set to 24°C, which the Autosol is designed to automatically maintain. The laboratory's temperature was also set and maintained to just below 24°C, to help further stabilize reading values and improve accuracy. Salinity analyses were performed after samples had equilibrated to laboratory temperature, usually at least 24 hours after collection. The salinometer was standardized for each group of samples analyzed (usually 2 casts and up to 50 samples) using two bottles of standard seawater: one at the beginning and end of each set of measurements. The salinometer output was logged to a computer file. The software prompted the analyst to flush the instrument's cell and change samples when appropriate. For each sample, the salinometer cell was initially flushed at least 3 times before a set of conductivity ratio readings were taken.

IAPSO Standard Seawater Batch P-151 was used to standardize all casts except stations 9 and 10, which batch P-149 (Table 13).

The salinity samples were collected in 200 ml Kimax high-alumina borosilicate bottles that had been rinsed at least three times with sample water prior to filling. The bottles were

sealed with custom-made plastic insert thimbles and Nalgene screw caps. This assembly provides very low container dissolution and sample evaporation. Prior to sample collection, inserts were inspected for proper fit and loose inserts replaced to insure an airtight seal. Laboratory temperature was also monitored electronically throughout the cruise. PSS-78 salinity [UNES81] was calculated for each sample from the measured conductivity ratios. The offset between the initial standard seawater value and its reference value was applied to each sample. Then the difference (if any) between the initial and final vials of standard seawater was applied to each sample as a linear function of elapsed run time. The corrected salinity data was then incorporated into the cruise database. When duplicate measurements were deemed to have been collected and run properly, they were averaged and submitted with a quality flag of 6. The total number of salinity samples collected from the rosette was 954 including the duplicate samples. A duplicate sample was drawn from each cast to determine total analytical precision.

The running standard calibration values are shown in Figure 7. You can see the autosal took some time to stabilize to nearly continual operation after about 5 casts had been run through the autosal. Through the course of the 3 week cruise, the autosal standards changed by less than 0.000015 in conductivity ratio (about 0.006 in salinity); once stabilized this was about 0.002 in salinity from station 6 onwards. The duplicates taken during the cruise showed a median precision of  $0.0001 \pm 0.0006$  psu (Figure 8 and Table 14).

1. Recommend that in the future we bring a UPS clean power supply/conditioner. We discovered that we thought the room was equipped with clean power, but it is not. A UPS/power conditioner should help reduce electrical noise.
2. Recommend that all AOML salinity bottles be renamed following PMEL convention of 1-24, 101-124, 201-224, etc. This should reduce errors and issues on incomplete cast sampling issues, etc.

Table 13: Nominal values for the batches of IAPSO standard seawater.

P-151	P-149
May 2012	October 2007
K15: 0.99997	K15: 0.99984
Salinity: 34.999	Salinity: 34.994

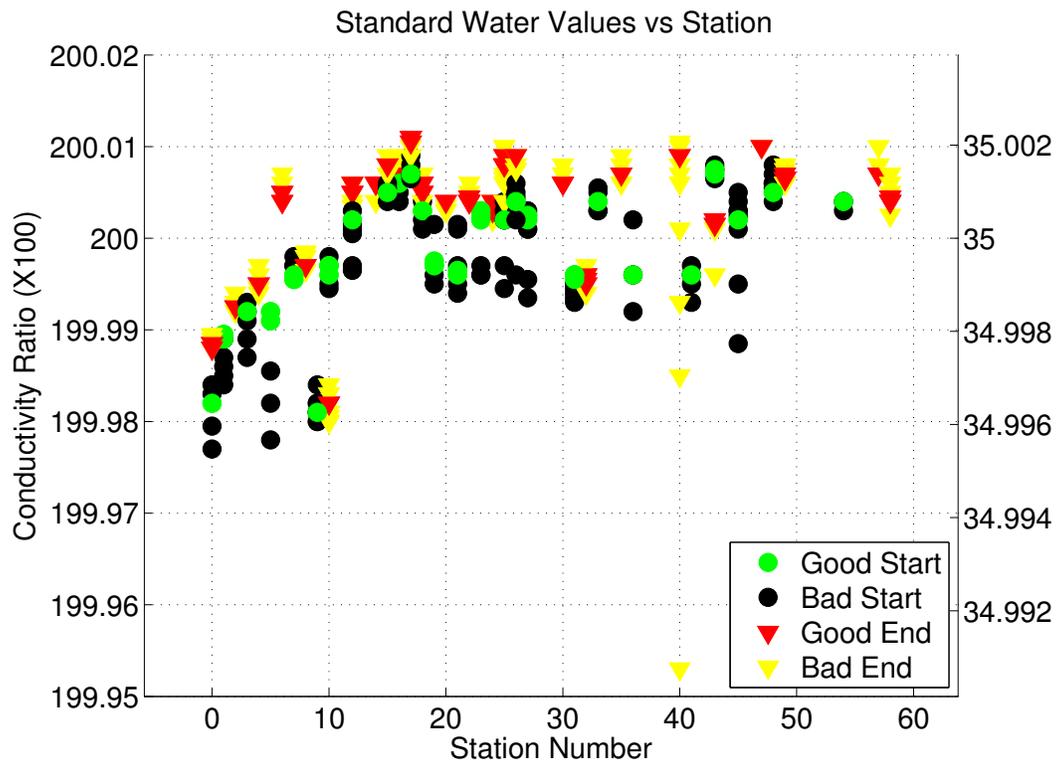


Figure 7: Standard vial calibrations throughout the cruise.

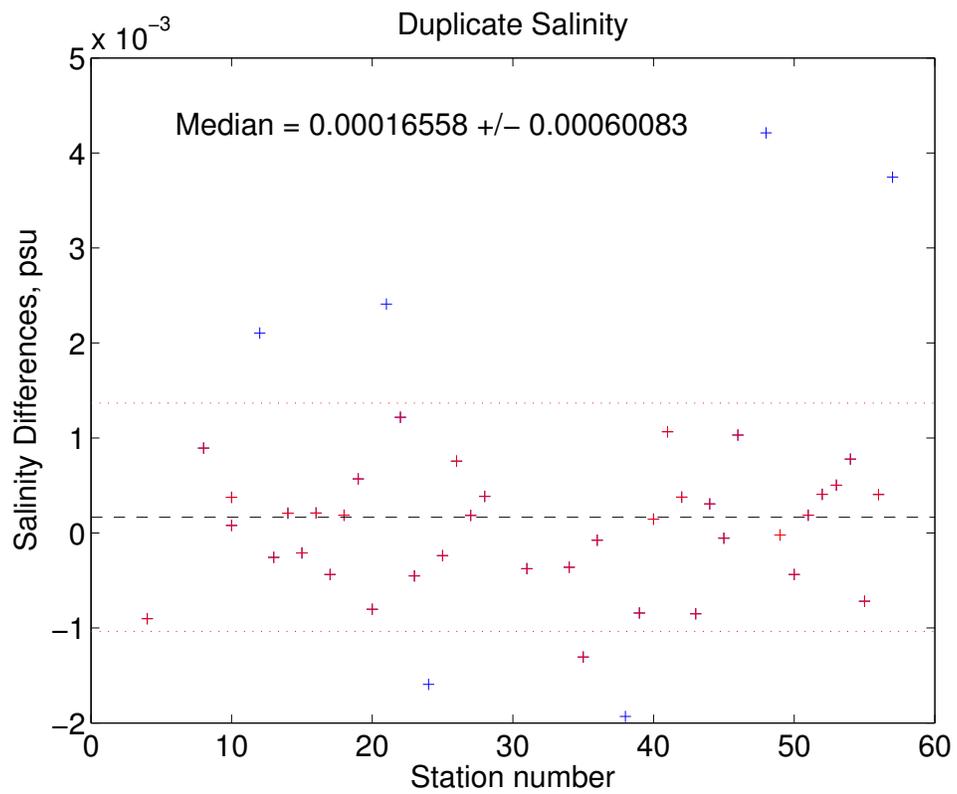


Figure 8: Salinity residuals of the duplicate samples.

Table 14: Duplicate salinity samples collected during the ABACO cruise.

Station	Niskin	Salinity1	Salinity2	Differences
4	2	34.872	34.871	0.001
8	2	34.885	34.885	-0.001
10	11	35.067	35.068	-0.000
10	13	35.097	35.097	-0.000
12	1	34.864	34.866	-0.002
13	3	34.890	34.890	0.000
14	11	35.048	35.048	-0.000
15	13	35.084	35.084	0.000
16	1	34.868	34.868	-0.000
17	2	34.883	34.883	0.000
18	24	36.643	36.644	-0.000
19	11	35.040	35.040	-0.001
20	1	34.884	34.883	0.001
21	2	34.891	34.894	-0.002
22	4	34.900	34.901	-0.001
23	6	34.942	34.941	0.000
24	21	36.725	36.723	0.002
25	11	35.046	35.046	0.000
26	13	35.036	35.037	-0.001
27	2	35.038	35.039	-0.000
28	1	36.560	36.560	-0.000
31	4	34.893	34.893	0.000
34	2	35.299	35.299	0.000
35	2	35.264	35.263	0.001
36	4	36.609	36.609	0.000
38	10	36.089	36.087	0.002
39	6	36.724	36.723	0.001
40	2	35.832	35.832	-0.000
41	3	35.583	35.584	-0.001
42	6	35.807	35.807	-0.000
43	8	35.944	35.943	0.001
44	4	35.119	35.119	-0.000
45	2	34.910	34.910	0.000
46	2	35.269	35.270	-0.001
48	8	35.864	35.868	-0.004
49	6	36.240	36.240	0.000
50	2	35.456	35.456	0.000
51	2	35.103	35.103	-0.000
52	8	36.499	36.500	-0.000
53	6	35.902	35.903	-0.001
54	2	34.908	34.908	-0.001
55	4	35.129	35.128	0.001
56	2	35.074	35.074	-0.000
57	16	35.931	35.935	-0.004

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### 8.4.2 Oxygen Analysis

Dissolved oxygen analyses were performed with an automated titrator using amperometric end-point detection (Langdon, 2010). Sample titration, data logging, and graphical display were performed with a PC running a LabView program written by Ulises Rivero of AOML. Lab temperature was maintained at 18.5-22.5°C. Thiosulfate was dispensed by a 2 *ml* Gilmont syringe driven with a stepper motor controlled by the titrator. Tests in the lab were performed to confirm that the precision and accuracy of the volume dispensed were comparable or superior to the Dosimat 665. The whole-bottle titration technique of Carpenter (1965), with modifications by Culberson et al. (1991), was used. Four replicate 10 *ml* iodate standards were run every 3-4 days. The reagent blank determined as the difference between V1 and V2, the volumes of thiosulfate required to titrate 1-*ml* aliquots of the iodate standard, was determined five times during the cruise. This method was found during pre-cruise testing to produce a more reproducible blank value than the value determined as the intercept of a standard curve.

Dissolved oxygen samples were drawn from Niskin bottles into calibrated 125-150 *ml* iodine titration flasks using silicon tubing. Bottles were rinsed three times and filled from the bottom, overflowing three volumes while taking care not to entrain any bubbles. The CTD temperatures were used to calculate *umol/kg* concentrations, and provide a diagnostic check of Niskin bottle integrity. 1 *ml* of MnCl<sub>2</sub> and 1 *ml* of NaOH/NaI were added immediately after drawing the sample was concluded using a ThermoScientific REPIPET II. The flasks were then stoppered and shaken well. Deionized water (DIW) was added to the neck of each flask to create a water seal. The total number of oxygen samples collected from the rosette was 892 including the duplicate samples. The samples were stored in the lab in plastic totes at room temperature for 1.5 hours before analysis. The data were incorporated into the cruise database shortly after analysis. Thiosulfate normality was calculated at the laboratory temperature for each run.

The dispenser used for the standard solution (SOCOREX Calibrex 520) and the burette were calibrated gravimetrically just before the cruise. Oxygen flask volumes were determined gravimetrically with degassed deionized water at AOML. The correction for buoyancy was applied.

Bottle number 135 broke and was replaced with bottle number 237. No other problems were noted.

The precision of the oxygen measurements during the cruise was estimated by using the duplicate samples. From the 51 duplicate samples (which corresponds of 15.7% of the total samples collected during this cruise the average residual for the duplicates was 0.02 *umol/kg* with and standard deviation of 0.42 *umol/kg* (Figure 9 and Table 15).

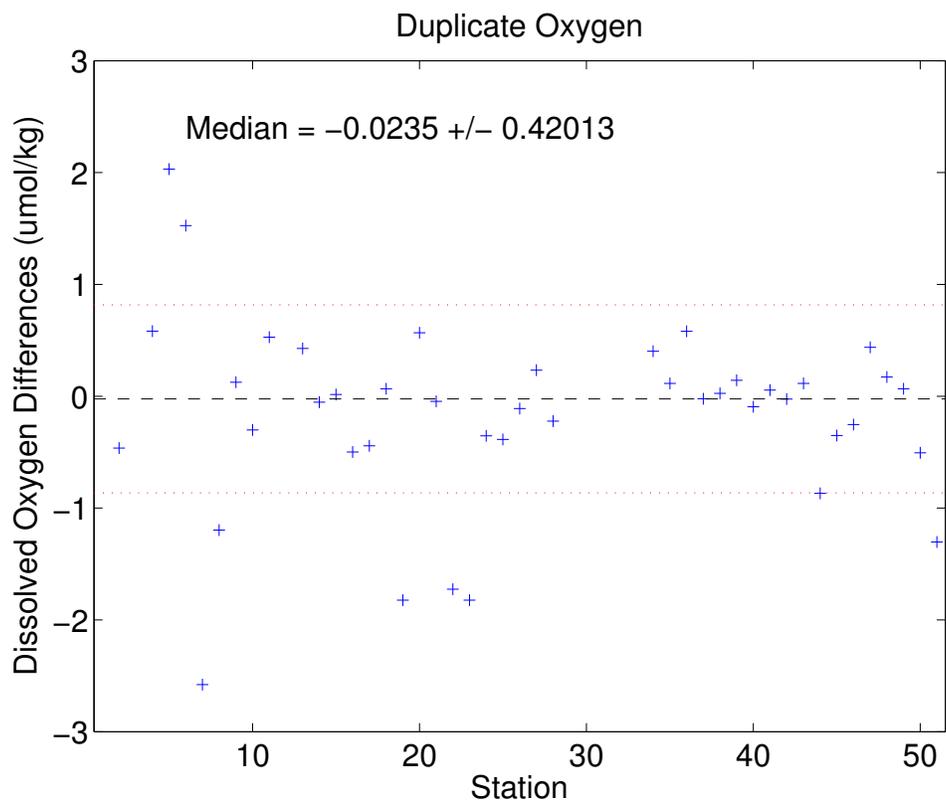


Figure 9: Oxygen residuals of the duplicate samples .

Table 15: Duplicate dissolved oxygen samples collected during the ABACO cruise (values in  $\mu\text{mol}/\text{kg}$ ).

Station	Niskin	Oxygen1	Oxygen2	Differences
2	1	257.5	257.0	0.463
4	2	263.8	264.4	-0.582
5	13	213.1	215.2	-2.031
6	8	270.3	271.8	-1.526
7	3	273.1	270.5	2.578
8	4	276.2	275.0	1.197
9	11	233.8	234.0	-0.125
10	13	171.9	171.6	0.302
11	5	274.1	274.7	-0.528
13	7	268.5	268.9	-0.427
14	11	239.2	239.1	0.053
15	13	194.3	194.3	-0.015
16	4	277.1	276.6	0.499
17	2	268.8	268.4	0.444
18	1	267.0	267.1	-0.067
19	11	245.9	244.1	1.823
20	1	267.6	268.1	-0.568
21	8	267.8	267.7	0.046
22	5	276.6	274.8	1.725
23	11	245.9	244.1	1.823
24	18	203.4	203.1	0.354
25	11	244.6	244.2	0.387
26	13	240.3	240.2	0.111
27	1	250.9	251.1	-0.233
28	1	204.1	203.9	0.223
34	2	147.7	148.1	-0.403
35	2	137.2	137.3	-0.114
36	2	179.2	179.8	-0.581
37	14	207.6	207.6	0.022
38	10	209.6	209.6	-0.025
39	6	179.9	180.1	-0.143
40	2	146.5	146.4	0.094
41	3	132.3	132.3	-0.055
42	6	140.9	140.9	0.025
43	8	146.1	146.2	-0.115
44	15	183.8	183.0	0.869
45	2	141.4	141.1	0.351
46	2	123.2	123.0	0.254
47	2	121.6	122.0	-0.438
48	8	208.5	208.6	-0.172
49	6	207.1	207.1	-0.066
50	2	126.2	125.7	0.506
51	2	124.9	123.6	1.303
52	4	128.5	128.2	0.248
53	2	149.7	149.7	0.000
53	6	134.0	134.3	-0.317
54	2	146.7	146.5	0.181
55	2	141.0	140.9	0.070
56	2	125.3	124.8	0.485
57	16	207.8	196.3	11.505
58	2	163.2	163.3	-0.109

## 9 Post-Cruise Calibrations

Post cruise sensor calibrations were done at Sea-Bird Electronics, Inc. (Table 16–18). Secondary temperature, conductivity and dissolved oxygen sensors served as calibration checks for the reported primary sensors.

In-situ salinity and dissolved oxygen check samples collected during each cast were used to calibrate the conductivity and dissolved oxygen sensors.

Two sensor combinations were used during the cruise as listed in Table 19 . Secondary TC pair T5239/C3657 was selected for final data reduction. Also secondary oxygen sensor (s/n 1266) was selected for final data reduction for all stations. In addition to the Seasave processing modules, a group of Matlab script files called AOML/CTDCAL Toolbox were used. These scripts were based in earlier work of different groups as well in modern statistical tools. They cover all the steps of the CTD data processing from the preliminary comparisons between sensors or with bottle samples to data reductions and final sensors calibrations.

Table 16: Post-Calibration coefficients for the conductivity sensors.

s/n 3860		s/n 3657	
March 23, 2012		March 23, 2012	
g = -1.03303154e+01		g = -9.90564197e+00	
h = 1.48629398e+00		h = 1.40360087e+00	
i = -1.55888233e-03		i = -3.39927695e-03	
j = 1.960129361e-04		j = 3.24542613e-04	
CPcor = -9.5700e-08		CPcor = -9.5700e-08	
CTcor = 3.2500e-06		CTcor = 3.2500e-06	

Table 17: Post-Calibration coefficients for the temperature sensors.

s/n 5233	s/n 5239	s/n 5237
March 23, 2012	March 23, 2012	March 23, 2012
g = 4.40266164e-03	g = 4.40433582e-03	g = 4.41021329e-03
h = 6.80254736e-04	h = 6.79374233e-04	h = 6.79974086e-04
i = 2.83983858e-05	i = 2.85732104e-05	i = 2.85776376e-05
j = 2.11199831e-06	j = 2.24511506e-06	j = 2.21802153e-06
f <sub>0</sub> = 1000.0	f <sub>0</sub> = 1000.0	f <sub>0</sub> = 1000.0

Table 18: Post-Calibration coefficients for the dissolved oxygen sensors.

s/n 0730	s/n 1266
March 22, 2012	March 22, 2012
Soc = 0.4993	Soc = 0.5174
Voffset = -0.5074	Voffset = -0.5395
Tau20 = 1.36	Tau20 = 1.40
A = -3.0102e-03	A = -2.7060e-03
B = 9.4219e-04	B = 1.0320e-04
C = -1.7332e-06	C = -2.0782e-06
$E_{nominal} = 0.036$	$E_{nominal} = 0.036$

Table 19: Various sensors configurations used during the ABACO – 12/02 cruise.

Station	Temperature		Conductivity		Oxygen		CTD	Pumps	
	Primary	Secondary	Primary	Secondary	Primary	Secondary		Primary	Secondary
0–7	5233	5239	3860	3657	0730	1266	0031	1211	3956
8–32	5233	5239	3860	3657	0730	1266	0031	1227	5946
33–34	5237	5239	3860	3657	0730	1266	0031	1227	5946
35–59	5237	5239	3860	3657	0730	1266	0031	1227	1666

## 9.1 CTD Data Processing

By using the post cruise sensors calibrations; time drifts were estimated for the temperature and conductivity sensors (for estimated time drifts see the appropriate sections below). The processing module sequence used at sea is done again to include the time drifts as well the pressure correction. After this step the following Matlab scripts based on PMEL programs are applied to the CTD data:

- FILL\_SURFACE was used to copy the first good value of salinity, potential temperature, oxygen and oxygen current back to the surface. The program then calculated temperature and conductivity, and zeroed doc/dt of oxygen current for those records.
- DESPIKE1 removed spikes from primary oxygen current and oxygen temperature data, as well as removing spikes from the primary conductivity sensor. Data were linearly interpolated over de-spiked records. Conductivity was back calculated, and sigma-theta and potential temperature were recomputed for the interpolated records.
- DESPIKE2 removed spikes from secondary sensors in the same method as DESPIKE1.
- Package slowdown and reversals due to ship roll can move mixed water in tow in front of the CTD sensors. This mixture can create artificial density inversions and other

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artifacts. In addition to SEASOFT module LOOPEDIT, an AOML program, DELOOP, computes values of density locally referenced between every 1 dbar of pressure to compute  $N^2 = (-g/\rho) (dp/dz)$  and linearly interpolated measured parameters over those records where  $N^2 \leq -1.0 \text{ e } -05 \text{ s}^{-2}$ .

## 9.2 *CTD Pressure*

Pressure sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw pressure data during each cast. Residual pressure offsets (the difference between the first and last submerged pressures) were examined to check for calibration shifts (see Figure 10 and Table 20). On deck pressures before the start of each cast was recorded and is plotted in Figure 10. The on deck pressure before and after the cast were stable at  $0.39 \pm 0.086$  db and  $0.29 \pm 0.13$  db, respectively. There is a noticeable shift in the on-deck values starting after station 33 (0.163 db median difference for station 0-33 and -0.049 median difference for station 34-58). This corresponds to the change in station depths; station 0-33 were deep CTD casts; Station 34 and onwards were all less than 850 m. It is clear that the pressure offset needs to be corrected before final calibration of the data is complete. This was accomplished by applying an offset of 0.39 dbar to the configuration file.

Near surface pressure values (which is taken as the near-surface pressure at the markscan and the last fired bottle pressure) showed larger variability, but no remarkable trends over the cruise ( $3.47 \pm 0.57$  db before and  $3.46 \pm 0.36$  db after).

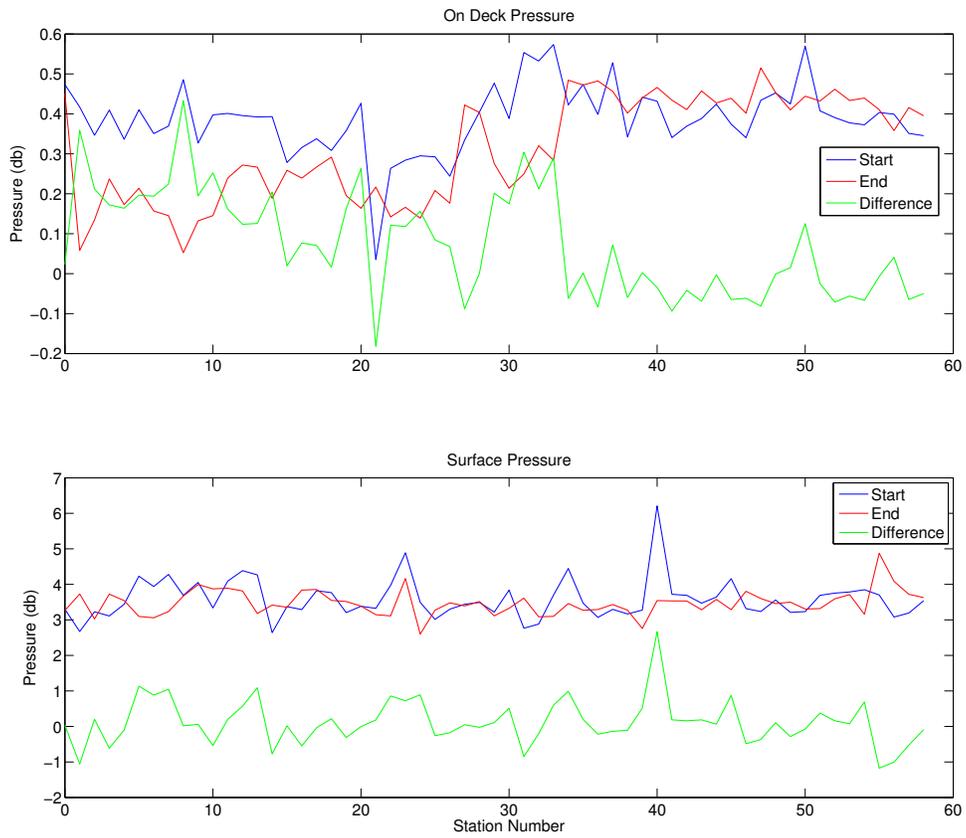


Figure 10: Pressure differences vs. station number. Top panel are the pressures measured on deck before the cast (blue), at the end of the upcast (red) and their respective difference (green). Bottom panel are the sea surface pressure values measured at the start of the downcast (blue), at the end of the upcast (red) and their respective difference (green).

Table 20: Near surface Pressure values and scan number used to remove surface soak and on-deck values.

Station	Markscan	Deck Prs Start	Deck Prs End	Sfc Prs Start	Sfc Prs End
0	14221	0.4736	0.4505	3.2996	3.2638
1	7400	0.4173	0.0581	2.6732	3.7300
2	8954	0.3464	0.1346	3.2283	3.0260
3	11896	0.4094	0.2373	3.1107	3.7260
4	12797	0.3364	0.1727	3.4401	3.5430
5	12724	0.4102	0.2138	4.2319	3.0970
6	9656	0.3507	0.1568	3.9398	3.0600
7	7297	0.3694	0.1452	4.2811	3.2350
8	8113	0.4856	0.0524	3.6894	3.6710
9	7634	0.3271	0.1323	4.0537	3.9960
10	11310	0.3976	0.1453	3.3378	3.8740
11	11903	0.4012	0.2394	4.0921	3.8930
12	7872	0.3956	0.2720	4.3865	3.8150
13	7895	0.3924	0.2666	4.2674	3.1790
14	5575	0.3932	0.1888	2.6400	3.4160
15	5776	0.2783	0.2587	3.3739	3.3550
16	20244	0.3158	0.2391	3.2904	3.8385
17	7134	0.3376	0.2669	3.8224	3.8580
18	6880	0.3084	0.2919	3.7674	3.5480
19	13766	0.3580	0.1955	3.2051	3.5170
20	8593	0.4266	0.1635	3.3844	3.3880
21	21250	0.0350	0.2169	3.3259	3.1450
22	11830	0.2636	0.1420	3.9727	3.1140
23	9907	0.2841	0.1661	4.8906	4.1660
24	7637	0.2949	0.1388	3.4915	2.6000
25	7916	0.2925	0.2081	3.0135	3.2740
26	8199	0.2439	0.1763	3.3020	3.4800
27	12265	0.3343	0.4222	3.4396	3.3920
28	32828	0.4046	0.4036	3.4912	3.5160
29	9136	0.4768	0.2754	3.2193	3.1123
30	15094	0.3883	0.2137	3.8373	3.3280
31	7494	0.5536	0.2495	2.7653	3.6125
32	8603	0.5324	0.3203	2.8819	3.0870
33	12750	0.5736	0.2840	3.6974	3.1000
34	8492	0.4224	0.4843	4.4483	3.4590
35	6263	0.4737	0.4722	3.4705	3.2700
36	5647	0.3986	0.4826	3.0706	3.2910
37	6274	0.5284	0.4564	3.2967	3.4330
38	7372	0.3423	0.4020	3.1662	3.2740
39	27301	0.4420	0.4398	3.2746	2.7570
40	7216	0.4317	0.4661	6.2101	3.5430
41	6531	0.3406	0.4343	3.7195	3.5350
42	12379	0.3692	0.4108	3.6920	3.5330
43	8993	0.3883	0.4573	3.4702	3.2840
44	6921	0.4244	0.4273	3.6417	3.5770
45	9542	0.3744	0.4391	4.1610	3.2880
46	10783	0.3404	0.4019	3.3189	3.8060
47	10009	0.4339	0.5149	3.2349	3.6030
48	7237	0.4524	0.4534	3.5613	3.4580
49	4724	0.4249	0.4098	3.2130	3.4980
50	12254	0.5694	0.4442	3.2333	3.3070
51	6911	0.4075	0.4323	3.6919	3.3170
52	10196	0.3907	0.4617	3.7526	3.5930
53	9817	0.3775	0.4336	3.7856	3.7120
54	7878	0.3727	0.4395	3.8492	3.1570
55	7727	0.4034	0.4106	3.7013	4.8760
56	6337	0.3992	0.3582	3.0805	4.0860
57	8828	0.3510	0.4158	3.1931	3.7200
58	7692	0.3454	0.3952	3.5388	3.6280

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### 9.3 CTD Temperature

Temperature sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw primary and secondary temperature data during each cast. Data accuracy, reproducibility and stability was examined by tabulating the difference between the two different temperature sensors over a range of pressures (bottle trip locations) for each cast. These comparisons are summarized in Figure 11, which shows a median temperature difference between the two sensors of  $-0.0002^{\circ}\text{C}$  and a standard deviation of  $0.001^{\circ}\text{C}$ . Note that after station 5, the scatter of the temperature differences increased because the primary temperature sensor shifted relative to the secondary sensor by  $+0.001^{\circ}\text{C}$  in 3000-5000 db (warmer) and then nearly linearly to  $-0.0015^{\circ}\text{C}$  at the surface (Figure 12). The primary sensor was replaced on station 33, where the median difference was uniform with depth and less than  $0.0008^{\circ}\text{C}$ .

Following Seabird application note No. 31, a linear offset drift is applied between the pre-cruise calibration and the pos-cruise calibration value (Table 21). The corrected temperature and offset are computed according to:

$$T_{cor} = slope * T_{CTD} + offset$$

and

$$offset = b * (residual/n)$$

where  $T_{cor}$  is the corrected temperature, the slope is taken to be 1,  $T_{CTD}$  is the sensor temperature,  $b$  is number of days between pre-cruise calibration and the cast to be corrected,  $n$  is the number of days between pre- and post-cruise calibrations, and the *residual* is residual from the post-calibration sheet (Sea-Bird Electronics, Inc., 2010).

Table 21: Secondary temperature offset values.

Station	T2 offset	Station	T2 offset
0	0.0008536	30	0.0008839
1	0.0008582	31	0.0008909
2	0.0008591	32	0.0008940
3	0.0008607	33	0.0008971
4	0.0008616	34	0.0008992
5	0.0008625	35	0.0008995
6	0.0008635	36	0.0008999
7	0.0008643	37	0.0009001
8	0.0008652	38	0.0009003
9	0.0008660	39	0.0009010
10	0.0008668	40	0.0009013
11	0.0008676	41	0.0009015
12	0.0008684	42	0.0009017
13	0.0008690	43	0.0009020
14	0.0008697	44	0.0009022
15	0.0008704	45	0.0009025
16	0.0008710	46	0.0009028
17	0.0008716	47	0.0009030
18	0.0008723	48	0.0009032
19	0.0008729	49	0.0009034
20	0.0008736	50	0.0009043
21	0.0008742	51	0.0009046
22	0.0008748	52	0.0009049
23	0.0008755	53	0.0009052
24	0.0008762	54	0.0009055
25	0.0008767	55	0.0009059
26	0.0008772	56	0.0009062
27	0.0008778	57	0.0009065
28	0.0008781	58	0.0009067
29	0.0008806		

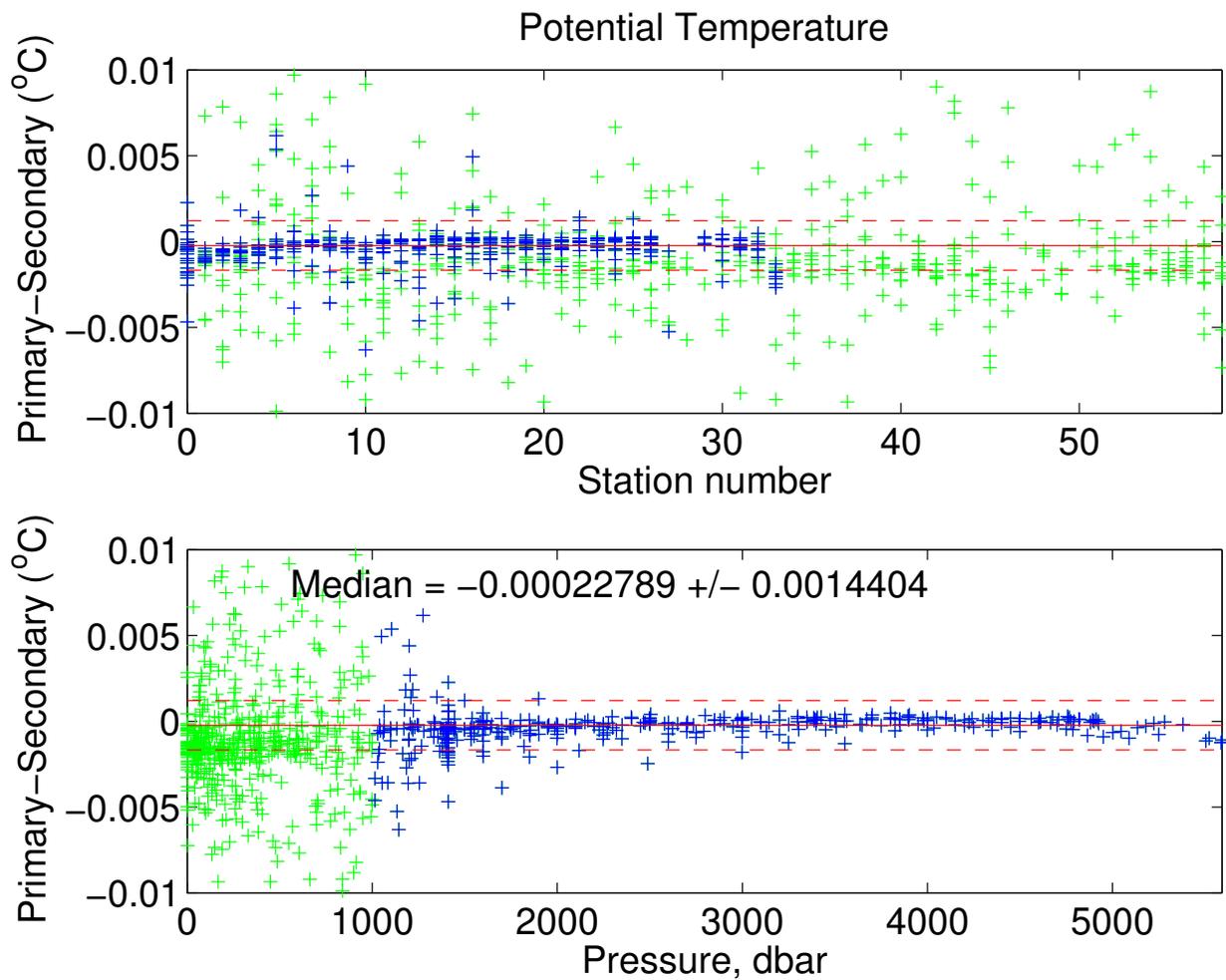


Figure 11: Temperature differences (after corrections) between sensors by station number (top) and pressure (bottom). The green represents the surface data down to 1000 db. The blue represents data below 1000 db. The red solid line represents the median with the red dashed representing the standard deviation (same for top and bottom).

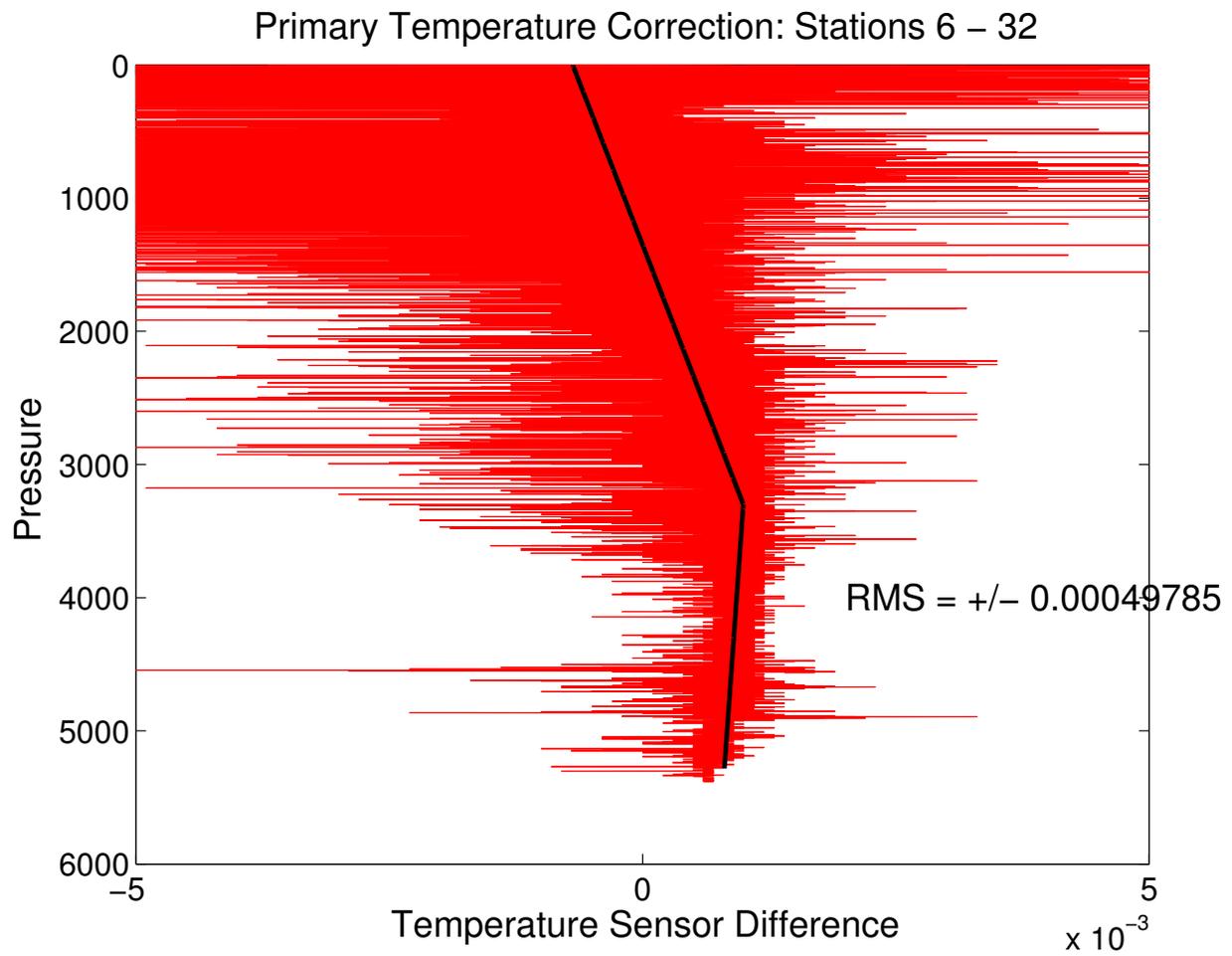


Figure 12: Primary temperature correction for stations 6 - 32.

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## 9.4 Conductivity

Conductivity sensor calibration coefficients derived from the pre-cruise calibrations were applied to raw primary and secondary conductivities. Comparisons between the primary and secondary sensors and between each of the sensors to conductivity calculated from bottle salinities were used to derive conductivity corrections. Uncorrected C1-C2 are shown in Figure 13 to help identify sensor drift. For the entire cruise, only one set of conductivity sensors were used, both tracked each other extremely nicely. The two sensors show a median difference of -0.000057 S/m and a standard deviation of 0.00013 S/m. There is a offset in the conductivity sensor differences at station 33 (Figure 14). This occurred after the CTD package skipped across deck at station 32. Looking at the T-S plot between station 32 and station 33 (same location), it is apparent that the primary sensor developed an offset (Figure 15). The secondary sensor exhibited the lowest residuals when compared to the bottle data (Figure 14) and was used for all the final data values.

Despite the large variability of the data in the last 25 stations, the bottle values are kept in the database and used for the final calibration. Note also that these CTD stations were in the Florida Straits and Northwest Providence Channel where bottom depths do not exceed 800 m. The AOML/CTDCAL Toolbox automatically applies a quality control to the data based on comparison with a normal distribution. After these procedures 814 data points (94.1 %) were used in the final calculations.

In order to calibrate the CTD conductivity data against the sample conductivity we assume a constant additive correction (offset), multiplicative correction (slope), time drift correction (represented by station number) and where needed, a linear pressure-dependent term. A non-linear function is used to derive these coefficients and are applied to

$$C_{new} = [m * C_{CTD} + (p_1 * station) + b + pcor * P]$$

with

$$\begin{aligned} m &= 0.9998063 \\ p_1 &= 1.6389574e-05 \\ b &= 0.0099491 \\ pcor &= -4.9147859e-07 \end{aligned}$$

where  $C_{new}$  is corrected conductivity (S/m),  $C_{CTD}$  is pre-cruise calibrated CTD conductivity (S/m),  $m$  is the conductivity slope,  $b$  is the offset (S/m),  $P$  is the pressure,  $pcor$  is the pressure correction coefficient,  $station$  is the station number and  $p_1$  is the polynomial coefficient. The fit is weighted so that bottle data below 1000 db is counted more heavily in the fit.

The coefficients estimated by the equation above were then applied to the CTD conductivities and the final results (Figure 16 to Figure 19) show a residual of  $6.5 \cdot 10^{-5}$  psu ( $-1.1 \cdot 10^{-5}$  psu for the data below 1000 dbar) and a standard deviation of 0.003 psu (0.0011 psu for the data below 1000 dbar). Also 69.0% of the residuals for the data are within the

confidence limits determined by the WOCE ( $\pm 0.002$  psu) and this number increase to 92.0% if we consider only the data below 1000 dbar.

A final verification about the quality of the data was made by comparing the results of this cruise with some historical data (Figure 20 and Figure 21). Water mass properties are very stable, specially for deeper layers of the ocean, that way by comparing these values we can have a very good estimative of the quality of these data.

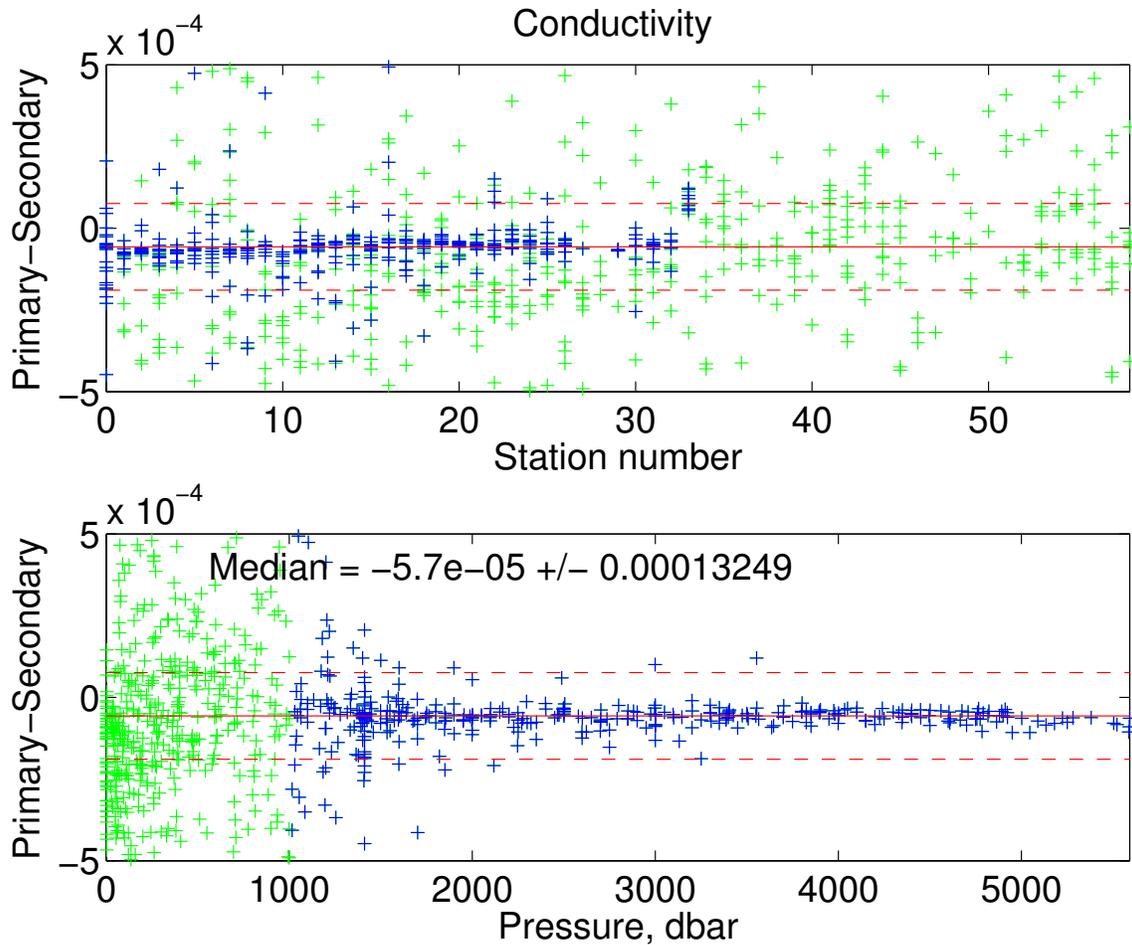


Figure 13: Conductivity differences between sensors by station number (top) and pressure (bottom). The green represents the surface data down to 1000 db. The blue represents data below 1000 db. The red solid line represents the median with the red dashed representing the standard deviation (same for top and bottom).

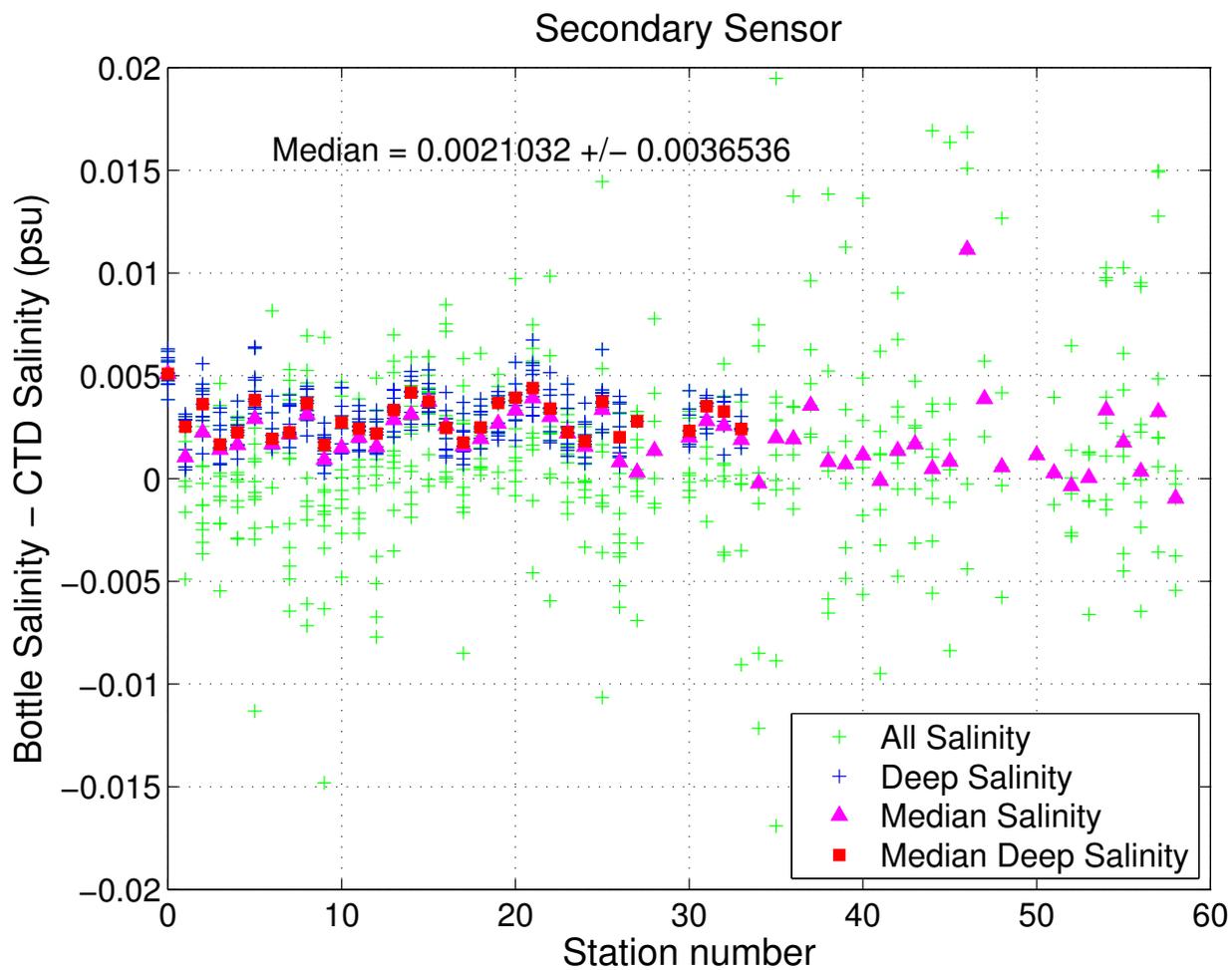


Figure 14: Bottle and uncalibrated secondary CTD salinity differences plotted against station number. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median values (calculated using the full profiles) for each group by station number are also plotted (triangles and squares respectively).

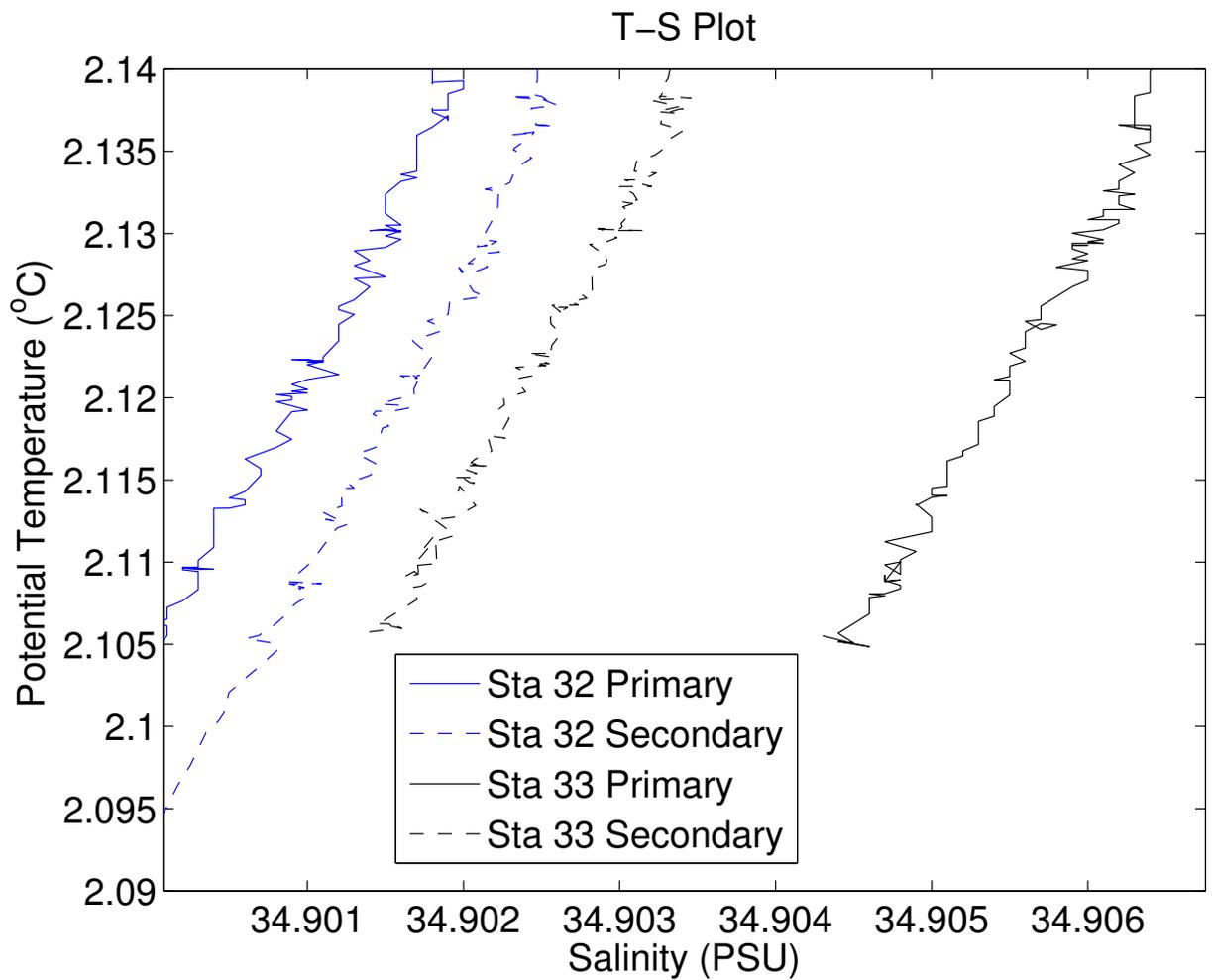


Figure 15: T-S plot of station 32 (blue) and station 33 (black). Primary is solid and secondary is dashed.

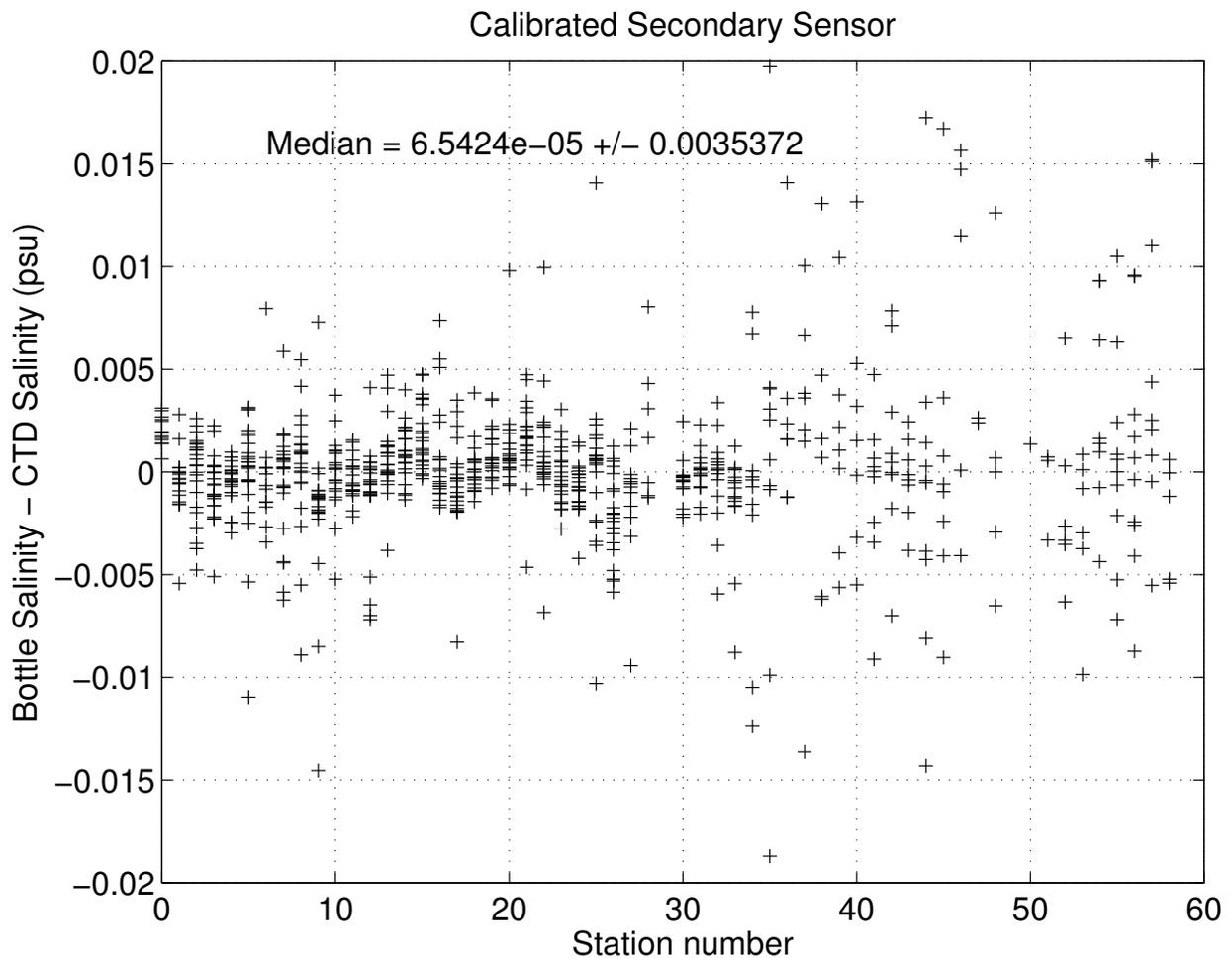


Figure 16: Bottle and calibrated secondary CTD salinity differences plotted vs. station.

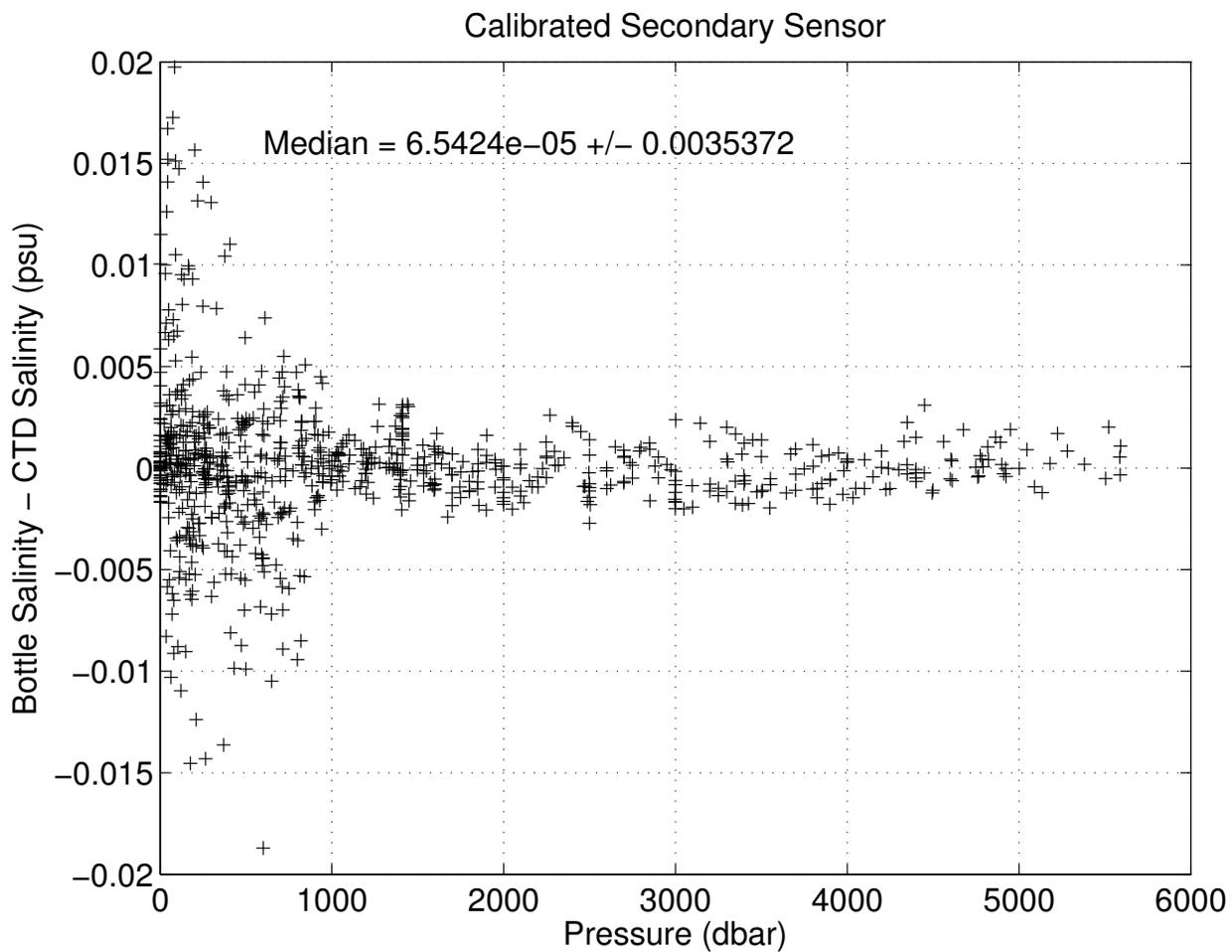


Figure 17: Bottle and calibrated secondary CTD salinity differences plotted vs. pressure.

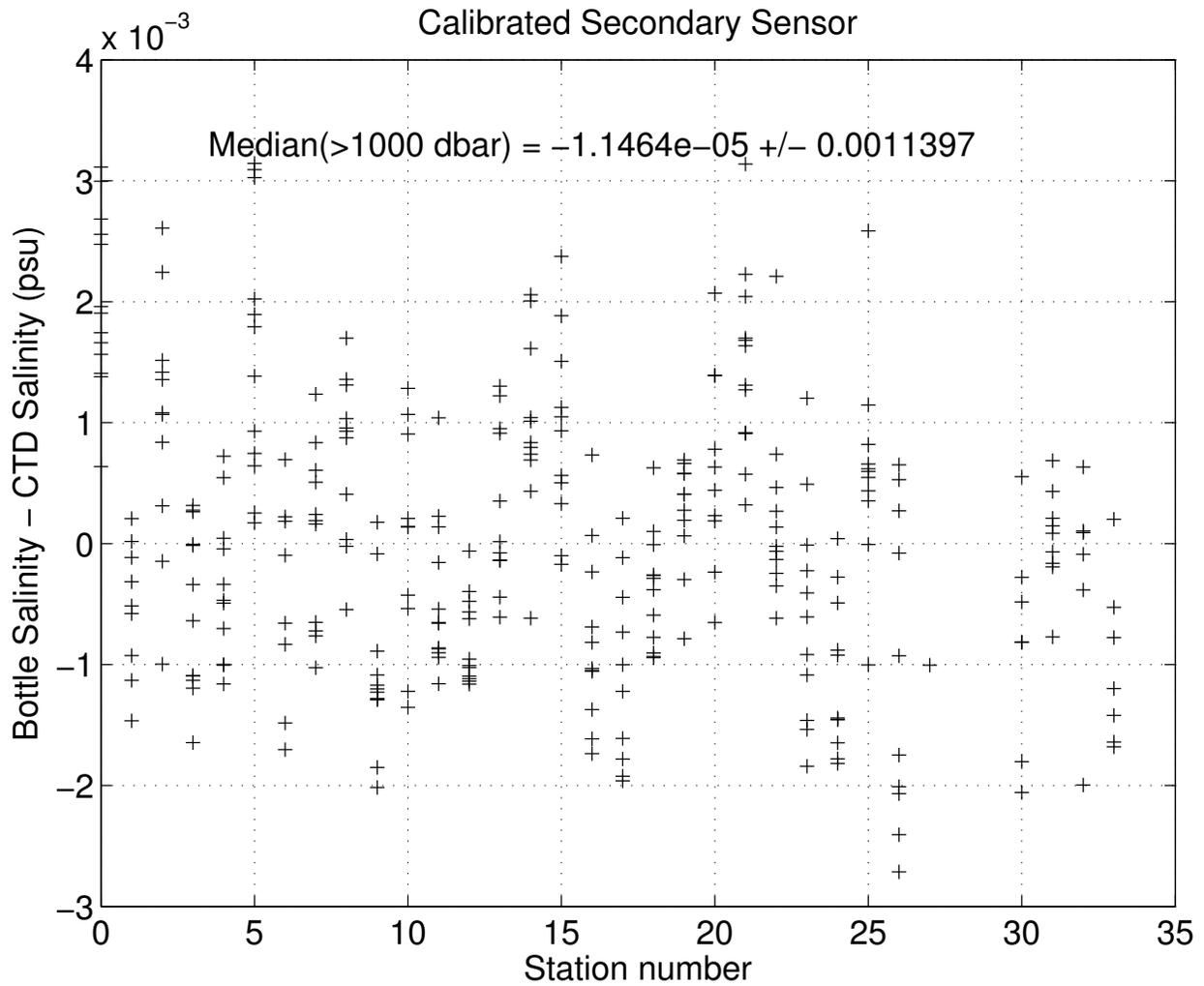


Figure 18: Bottle and calibrated secondary CTD salinity differences plotted vs. station below 1000 dbar.

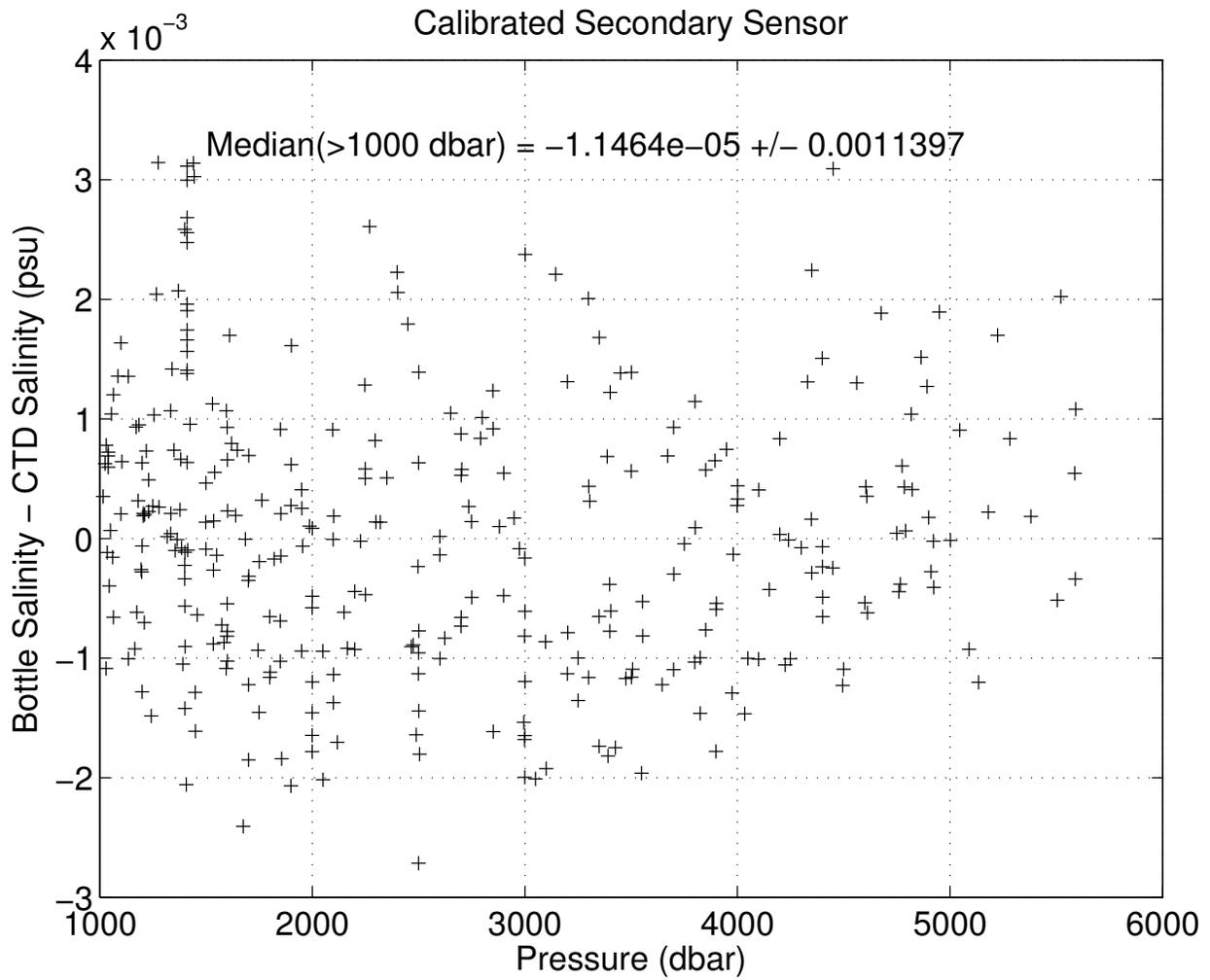


Figure 19: Bottle and calibrated secondary CTD salinity differences plotted vs. pressure below 1000 dbar.

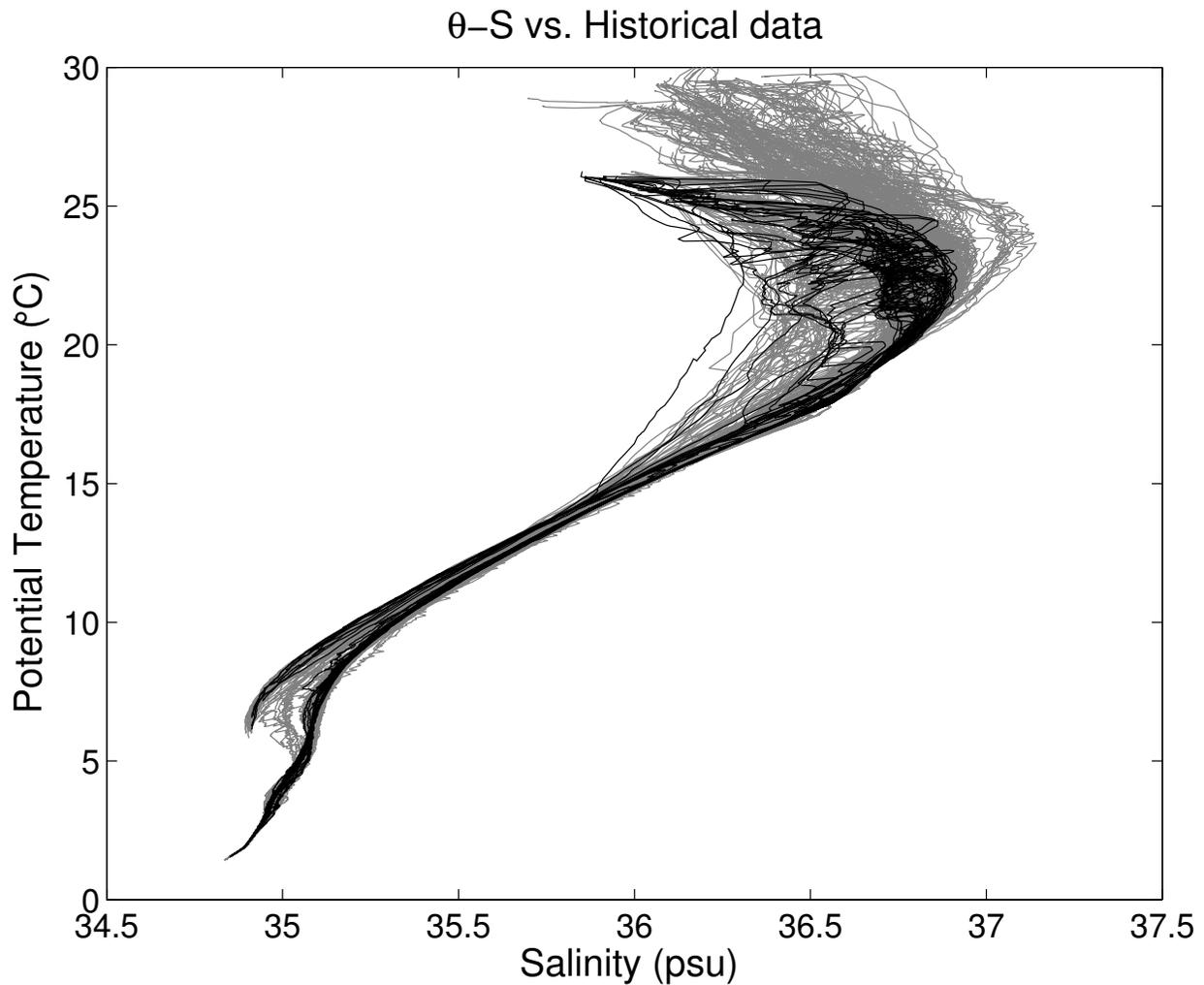


Figure 20: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

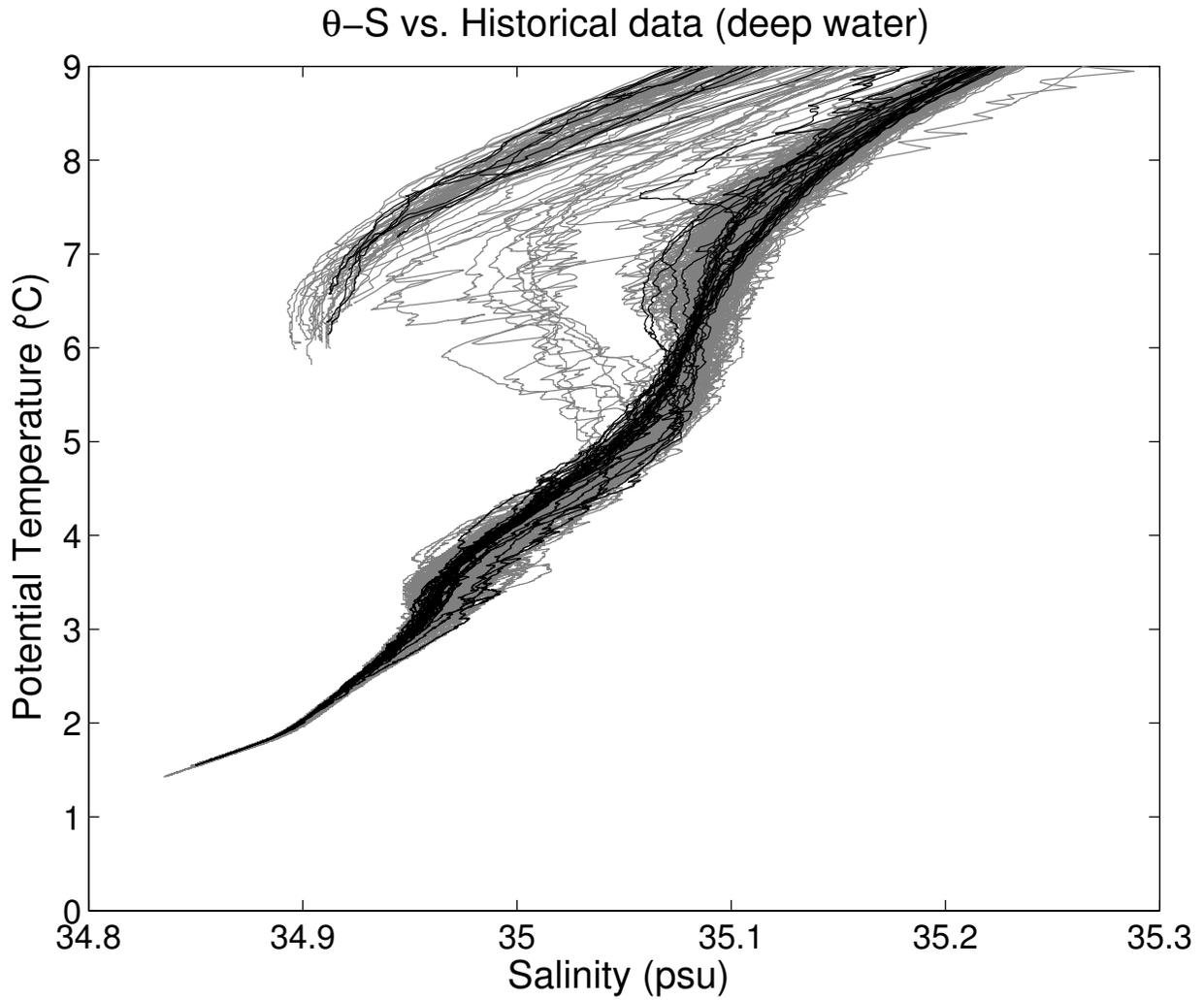


Figure 21: Potential Temperature - Salinity diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

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## 9.5 Dissolved Oxygen

Two SBE43 dissolved O<sub>2</sub> (DO) sensors were used on this leg (Table 8). Both sensors tracked each other very well, with no noted problems. Due to a hysteresis problem with the oxygen sensors the DO sensors were calibrated to dissolved O<sub>2</sub> check samples by matching the up cast bottle trips to down cast CTD data along neutral density surfaces, calculating CTD dissolved O<sub>2</sub>, and then minimizing the residuals using a non-linear least-squares fitting procedure.

The algorithm used for converting oxygen sensor current and probe temperature measurements as described, requires a non-linear least squares regression technique in order to determine the best fit coefficients of the model for oxygen sensor behavior to the water sample observations. A Matlab® sub-routine called `oxfit.m` from the AOML CTD/CAL TOOLBOX performs non-linear least squares regression using the Gauss-Newton algorithm with Levenberg-Marquardt modifications for global convergence. This algorithm is independent of the first coefficients guess and demonstrates excellent convergence. This oxygen fitting routine includes an optional time drift term (related with the station number), allowing all stations to be calibrated without breaking into discrete groupings. The Owens and Millard (1985) algorithm was modified as follows:

$$O \text{ (ml/l)} = \{Soc * (V + V_{offset} + tau(T, S) * \frac{\delta v}{\delta t}) + p1 * station\} \\ *(1.0 + A * T + B * T^2 + C * T^3) * OXSAT(T, S) * e^{E * (\frac{P}{K})}$$

with

$$\begin{aligned} Soc &= 0.5310073 \\ V_{offset} &= -0.5213970 \\ tau &= 1.84 \\ A &= -0.0058529 \\ B &= 0.0003664 \\ C &= -0.0000069 \\ E &= 0.0359180 \\ p1 &= 0.0000262 \end{aligned}$$

where  $Soc$ ,  $tau$ ,  $V_{offset}$ ,  $A$ ,  $B$ ,  $C$ ,  $E$  and  $p1$  are the calibration coefficients shown above and  $V$  is the instrument voltage ( $V$ ).  $T$ ,  $S$  and  $P$  are the temperature, salinity and pressure measured by the CTD.  $K$  is the temperature in the absolute scale,  $station$  is the station number, and  $OXSAT$  is the oxygen saturation (see section 7.4 Dissolved Oxygen).

A comparison between the primary and secondary sensors (Figure 22) and between each of the sensors to bottle oxygen (Figure 23 & Figure 24) were evaluated and the secondary sensor was chosen. Based on the differences between the samples and the CTD sensor, outliers were removed and initially 98.1% of the samples were kept to perform the calculations.

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An offset is also observed in the oxygen sensor differences at station 33 (Figure 22). No deep oxygen bottle data was drawn to perform a secondary calibration for stations 33 to 58. However, the remaining stations were calibrated to within WOCE standards. It is very noticeable between the difference in the variability in the last 25 casts (Figure 23), which corresponds to the Florida Straits and Northwest Providence Channel (where bottom depths do not exceed 800 m), although we decided not to divide them into a second group for separate analysis. Also, analogous to the conductivity, AOML/CTDCAL Toolbox automatically applies a quality control to the data based on comparison with a normal distribution. After these procedures 749 data points (89.1%) were used in the final calculations.

By minimizing the differences between the oxygen samples and the CTD oxygen estimated from the equation described in this section, new coefficients were calculated and then applied to the CTD original data (Figure 25 to Figure 28). The residual is  $-0.11 \text{ } \mu\text{mol/kg}$  ( $-0.03 \text{ } \mu\text{mol/kg}$  for the data below 1000 dbar) and the standard deviation  $2.02 \text{ } \mu\text{mol/kg}$  ( $1.32 \text{ } \mu\text{mol/kg}$  for the data below 1000 dbar). Also 91.2% of the residuals for the data are within the confidence limits determined by the WOCE ( $\pm 1\%$  of the dissolved oxygen measured) and this number increase to 95.4% if we consider only the data below 1000 dbar.

A final verification about the quality of the data, like in the salinity data, was made by comparing the results of this cruise with some historical data available at the location of the Abaco section and the other sections. Again by investigating water mass properties, particularly for deeper layers of the ocean, we can have an estimative of the quality of these data.

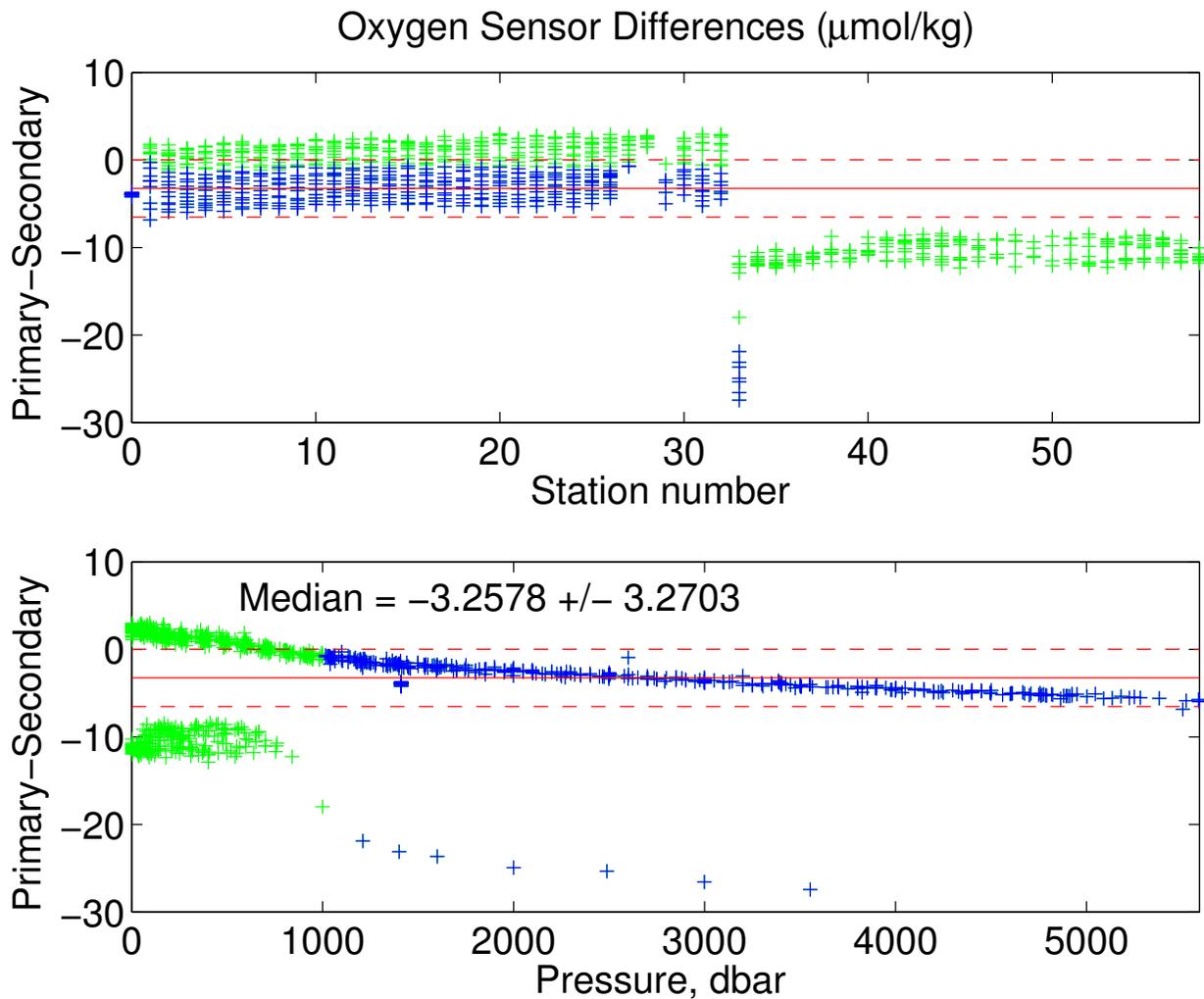


Figure 22: Dissolved oxygen differences between sensors by station number (top) and pressure (bottom). The green represents the surface data down to 1000 db. The blue represents data below 1000 db. The red solid line represents the median with the red dashed representing the standard deviation (same for top and bottom).

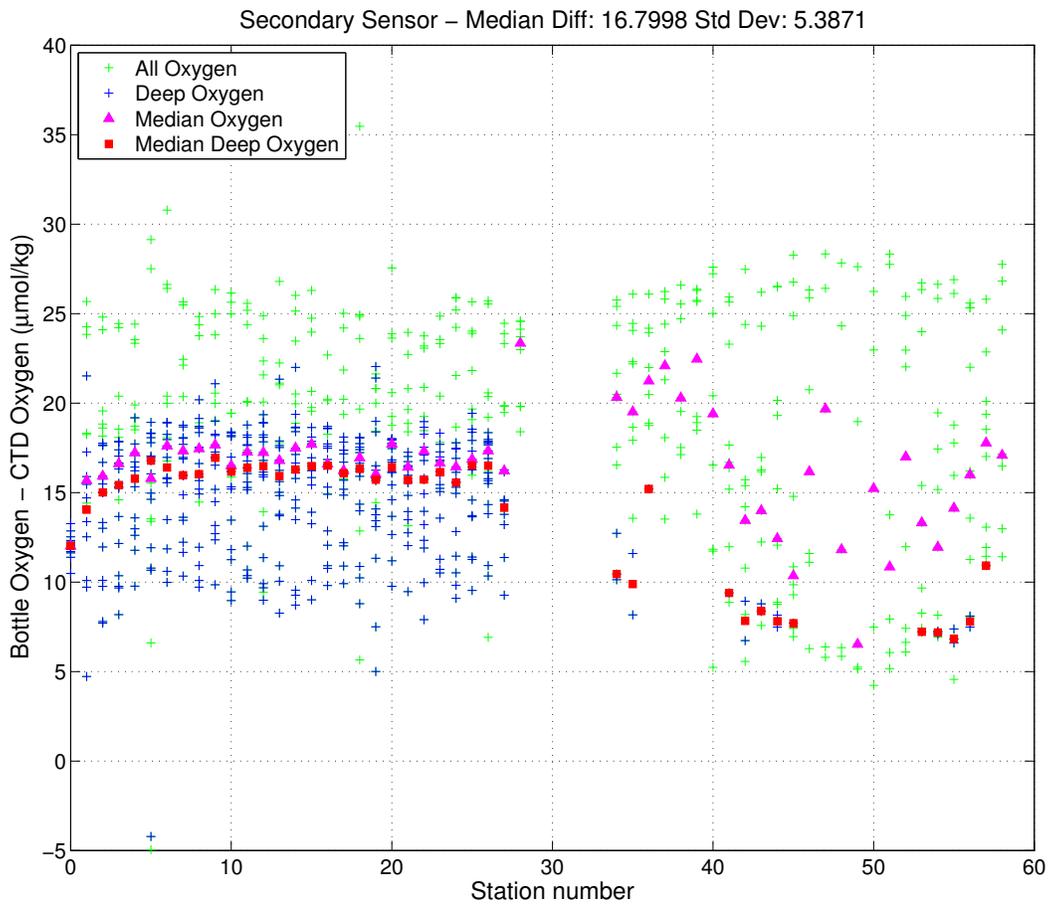


Figure 23: Bottle and uncalibrated secondary CTD oxygen differences plotted against station number. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

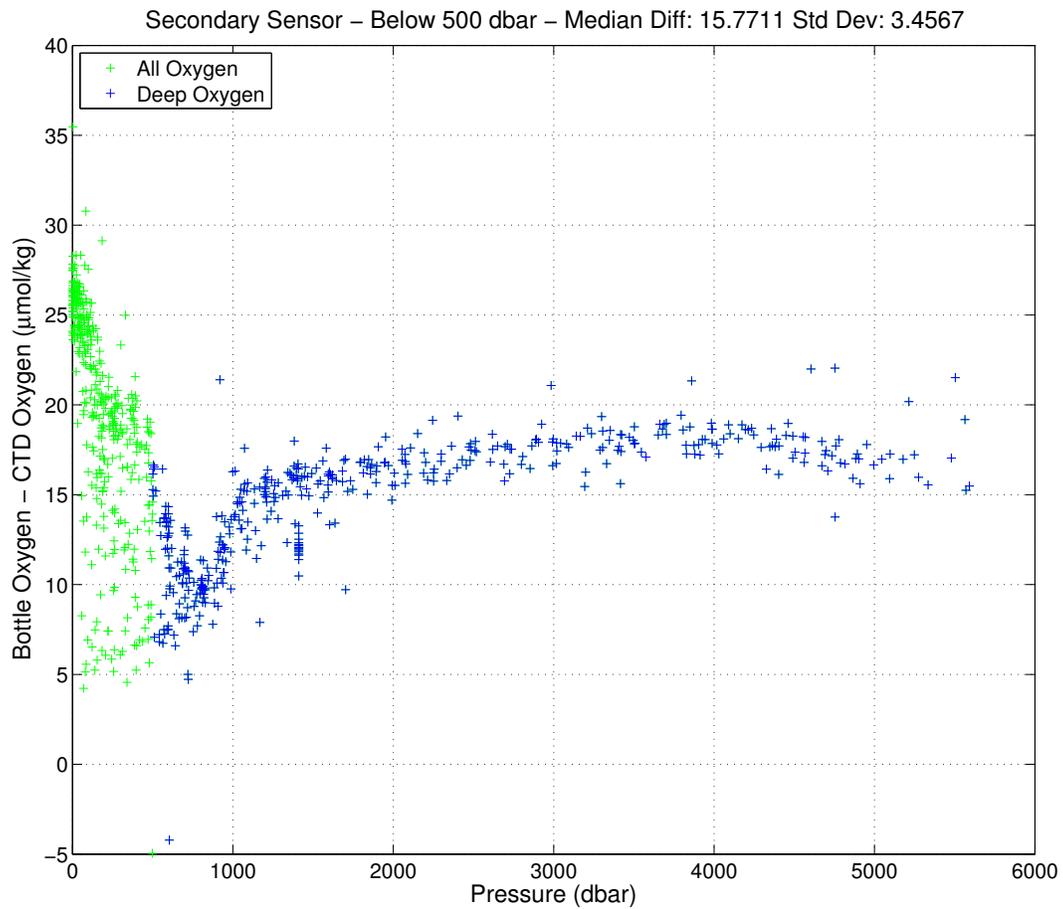


Figure 24: Bottle and uncalibrated secondary CTD oxygen differences plotted against pressure. The green crosses represent all data points and the blue are the data points below 1000 dbar. The median was calculated using only the data below 1000 dbar.

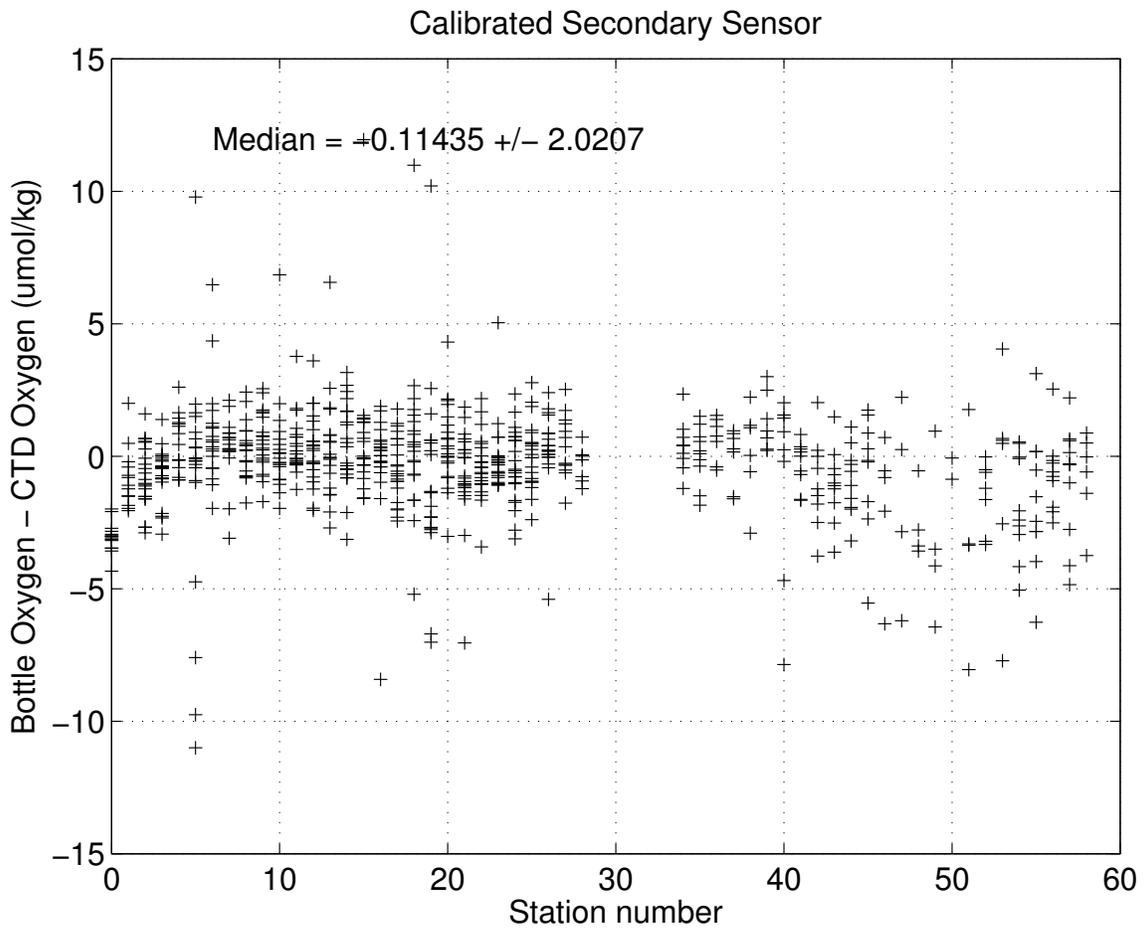


Figure 25: Bottle and calibrated secondary CTD oxygen differences plotted vs. station.

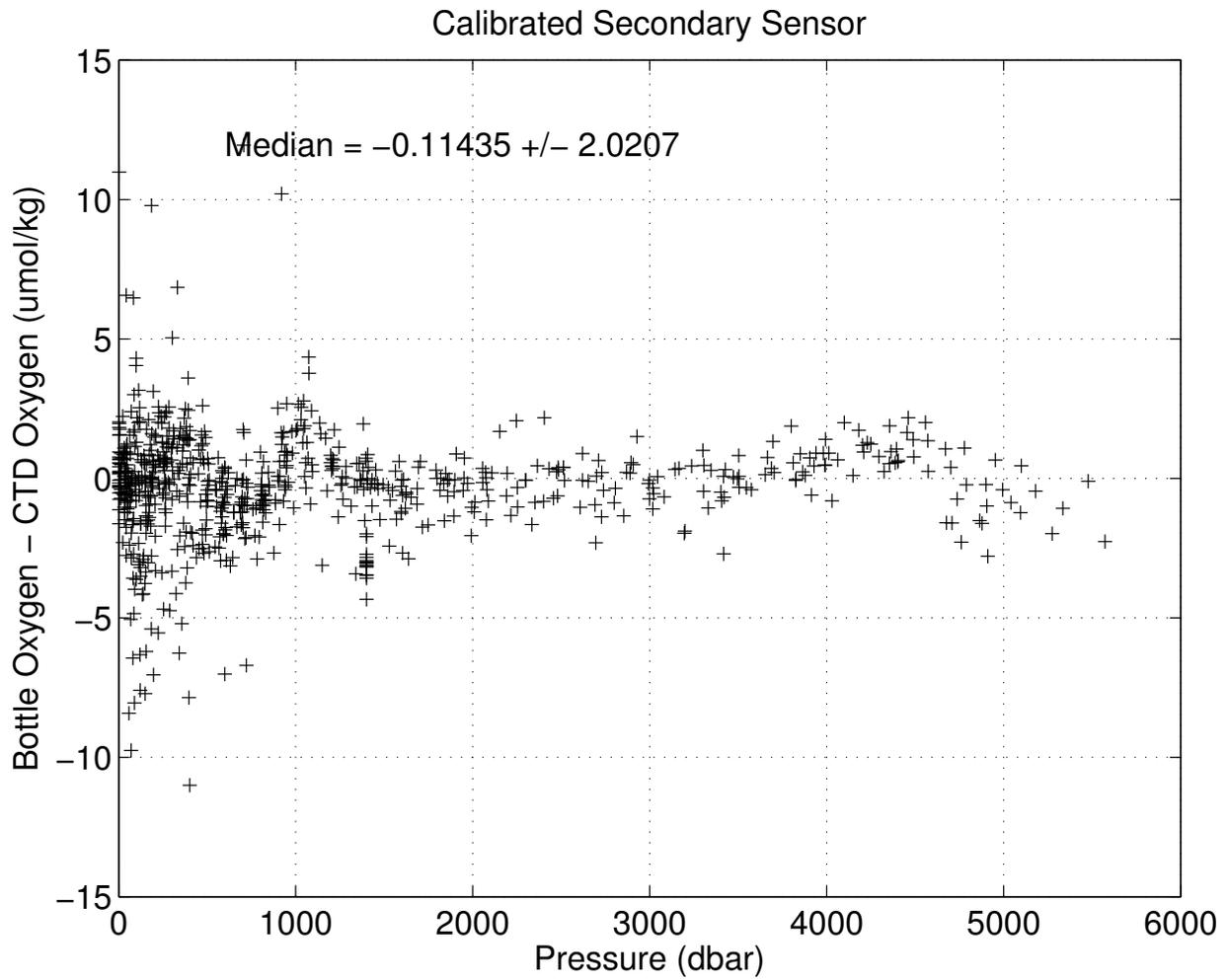


Figure 26: Bottle and calibrated secondary CTD oxygen differences plotted vs. pressure.

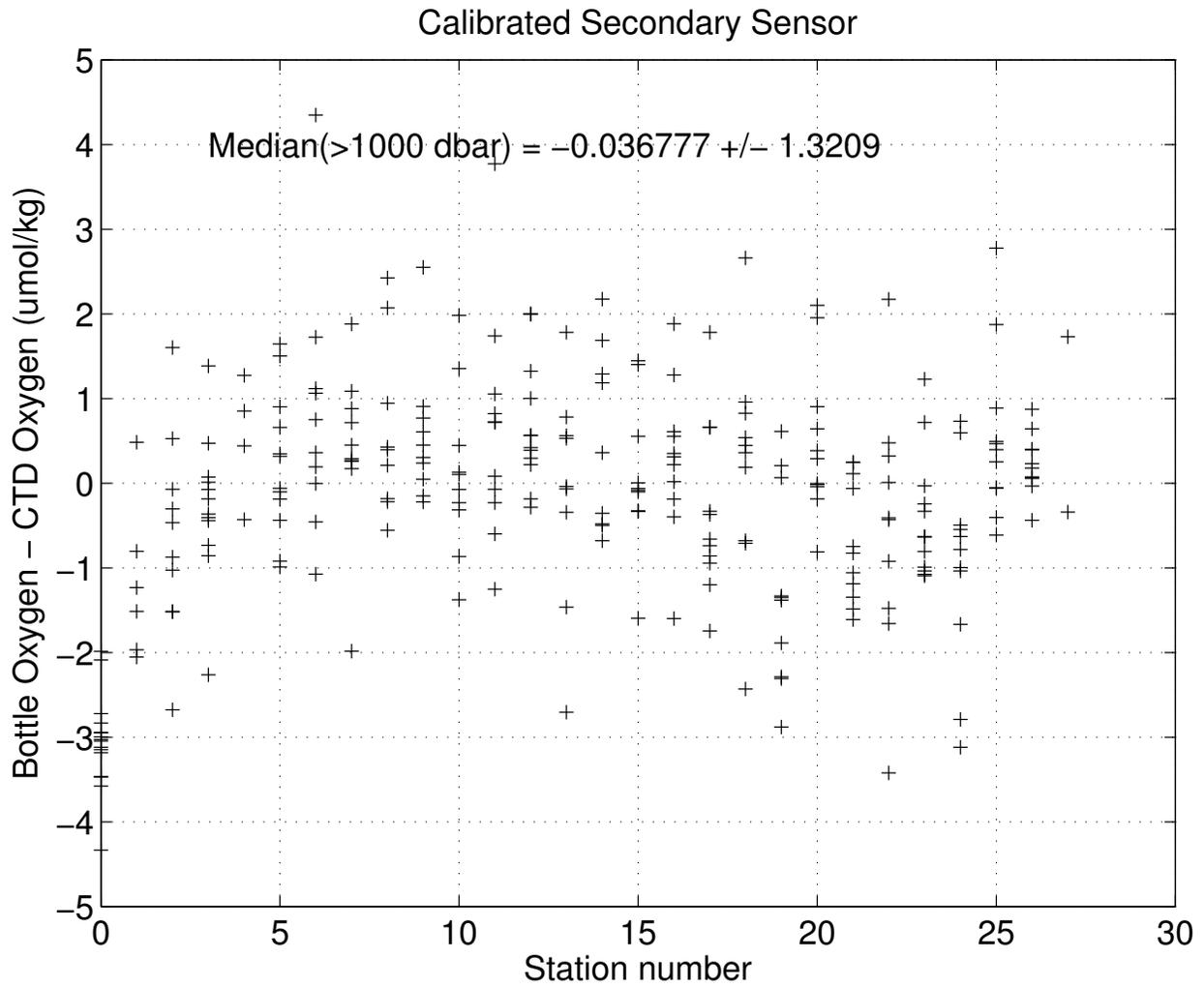


Figure 27: Bottle and calibrated secondary CTD oxygen differences plotted vs. station below 1000 dbar.

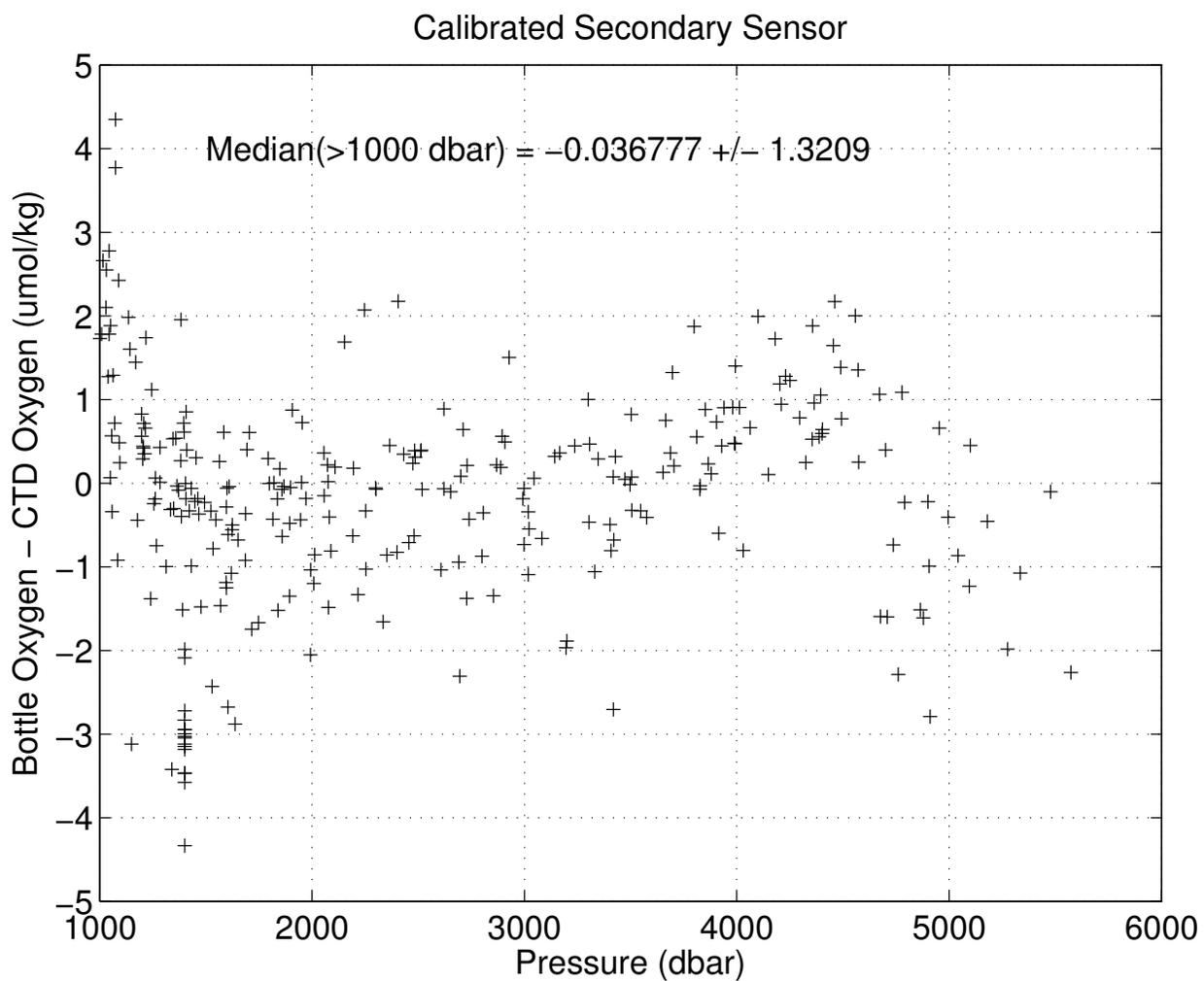


Figure 28: Bottle and calibrated secondary CTD oxygen differences plotted vs. pressure below 1000 dbar.

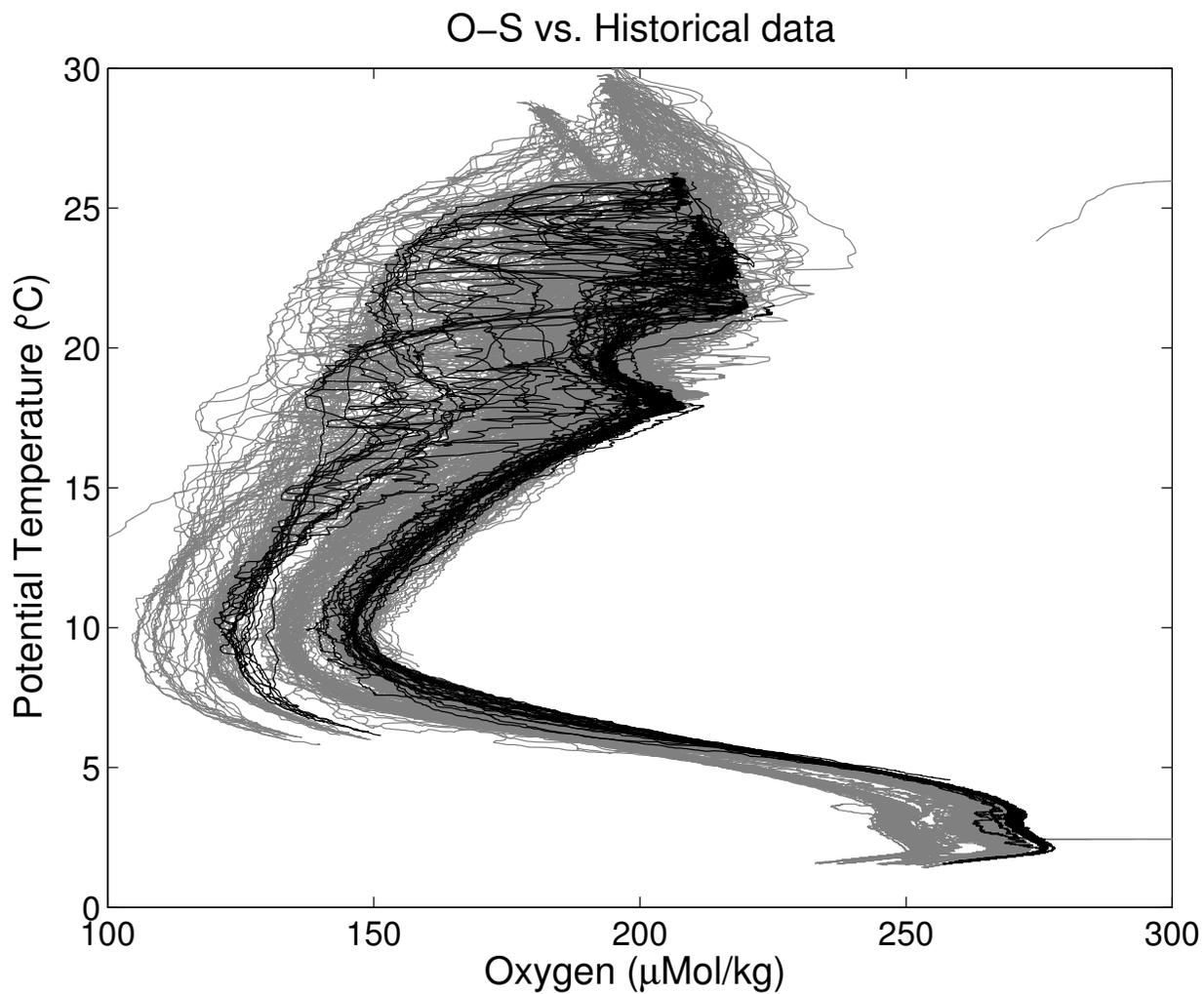


Figure 29: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

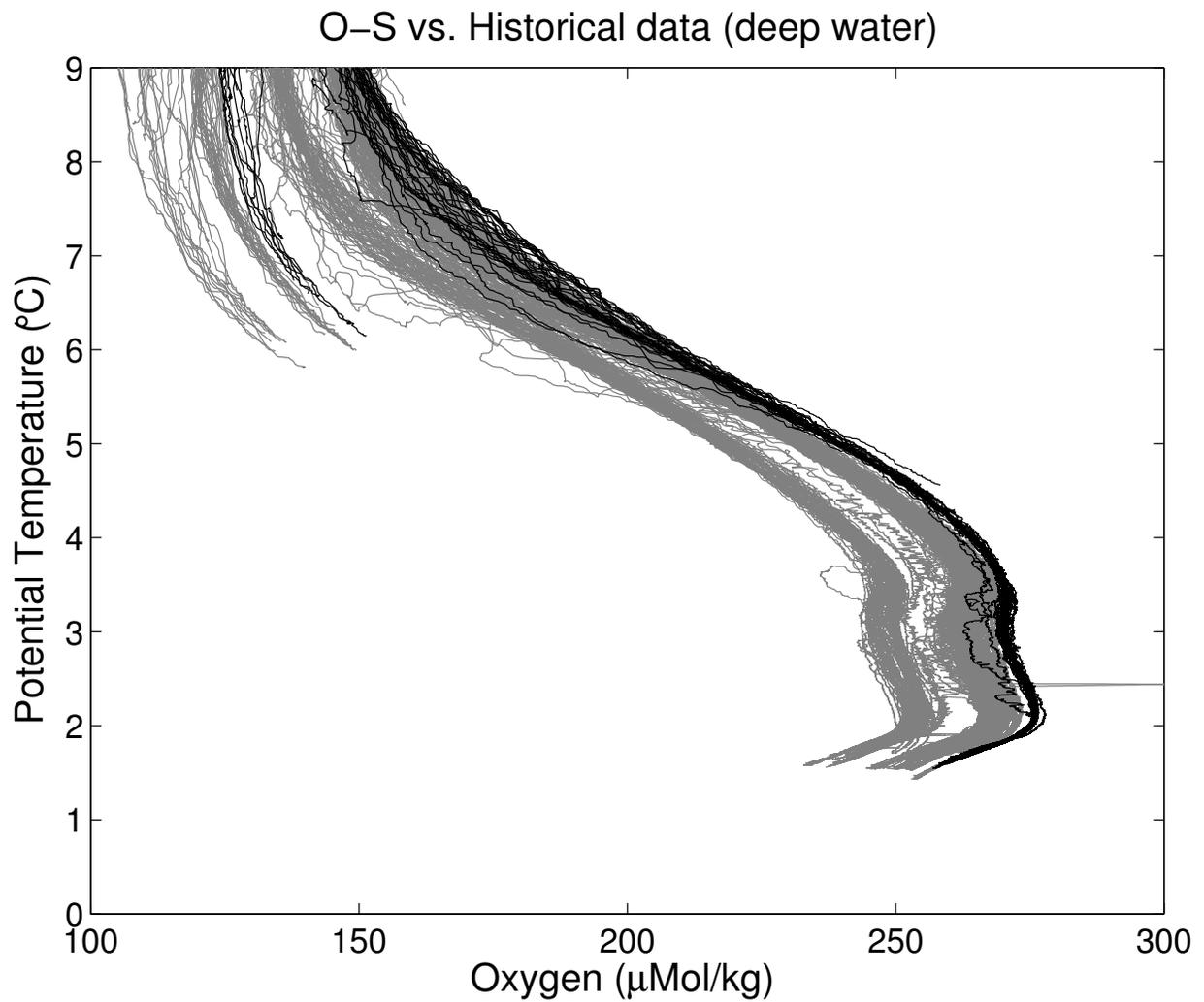


Figure 30: Potential Temperature - Oxygen diagram for all stations. The solid black lines are the data collected during this cruise; the solid gray lines are data from the historical database.

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## 10 *Final CTD Data Presentation*

The final calibrated data files were used to produce the tables and station profile plots presented in Appendix C for each CTD station. The table on the left is in "standard depths" and its corresponding profile plot is shown on the facing page. Niskin bottle depths are presented on the right side of the profile plot. Bottle salinity and oxygen values are plotted as points in the three smaller plots.

Vertical sections of potential temperature, CTD salinity, neutral density, and CTD oxygen are contoured with pressure as the vertical axis and for Abaco Sections longitude as horizontal axis (Figure 31 to Figure 34). Florida Current North (27N) Sections and Florida Current South (26) Sections also use longitude as horizontal axis (Figure 35 to Figure 42). For the Northwest Providence Channel Sections latitude is used as horizontal axis (Figure 43 to Figure 46).

Post-cruise calibrations were applied to CTD data associated with bottle data using Matlab sub-routines (`apply_calibration.m`). WOCE quality flags were appended to bottle data records. "Bad values" (WOCE quality control value = 4) were flagged if they bottle samples failed the initial quality control and were not used for the calibration (which meant they typically fell outside 5 standard deviations of the difference between samples and uncalibrated CTD values). Questionable flags (WOCE quality control value = 3) were defined by using the value of 2.5 times the standard deviation of the difference between calibrated CTD values and bottle samples.

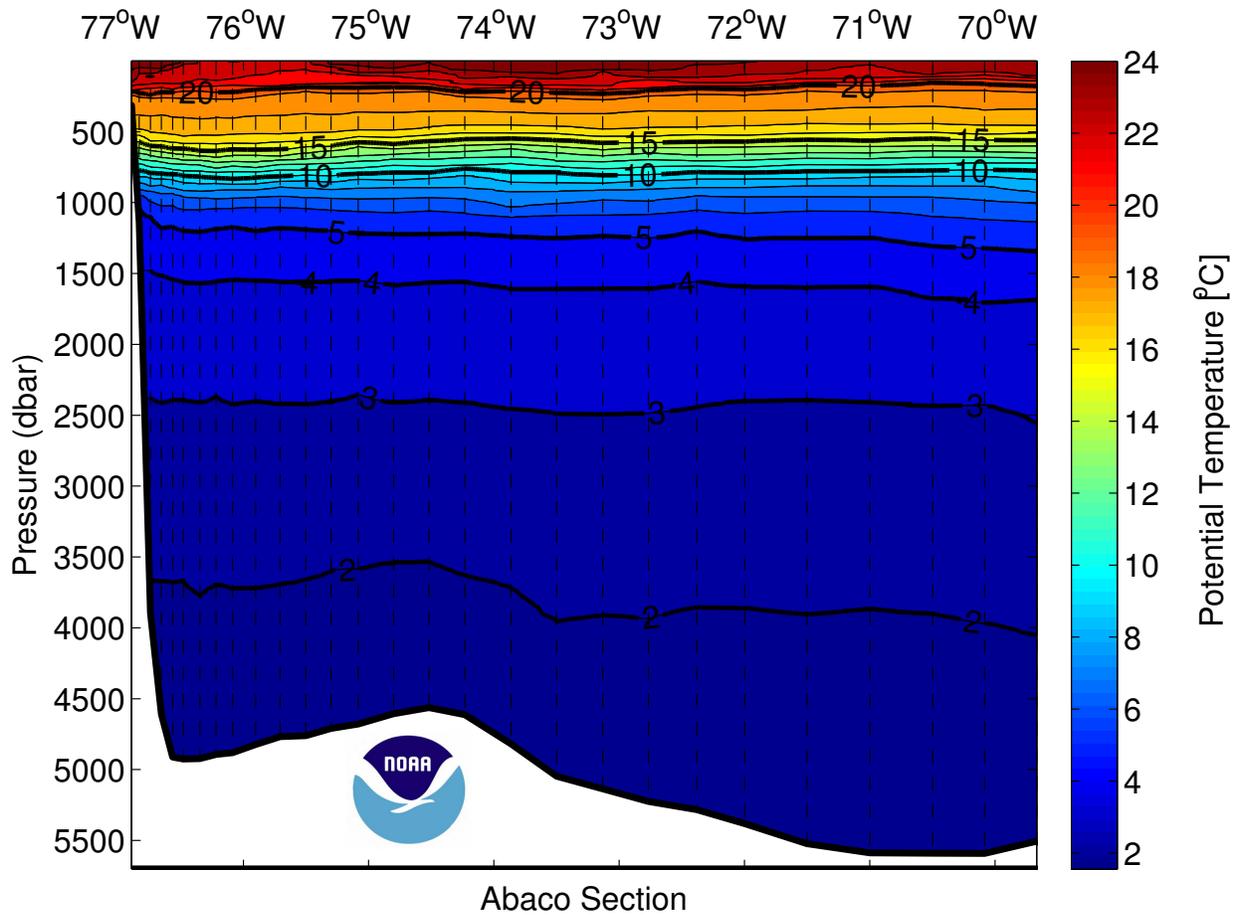


Figure 31: Potential Temperature ( $^{\circ}\text{C}$ ) section for the Abaco Section. Contour intervals are  $1^{\circ}\text{C}$ . Dashed vertical lines are the CTD station locations.

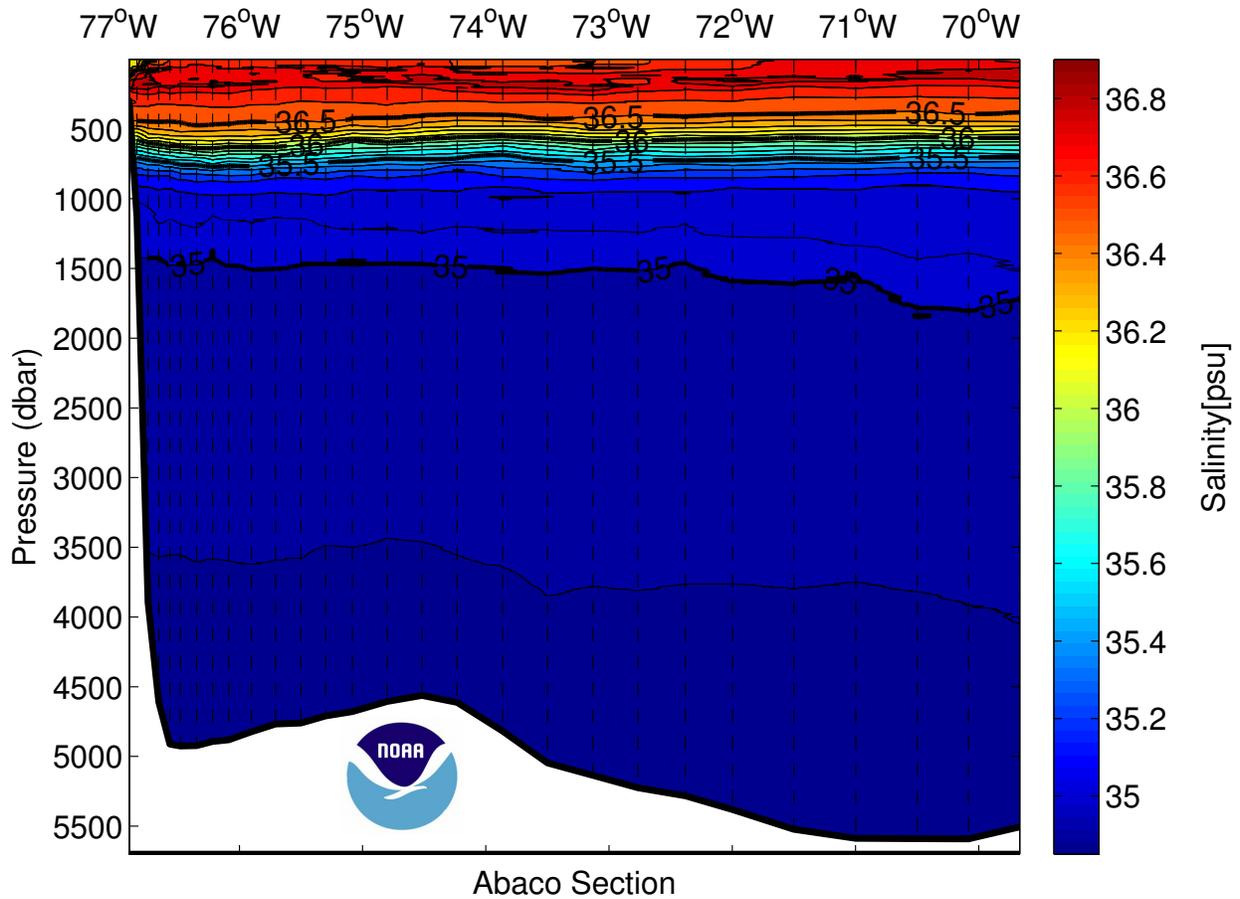


Figure 32: Salinity (PSS 78) section for the Abaco section. Contour intervals are 0.1. Dashed vertical lines are the CTD station locations.

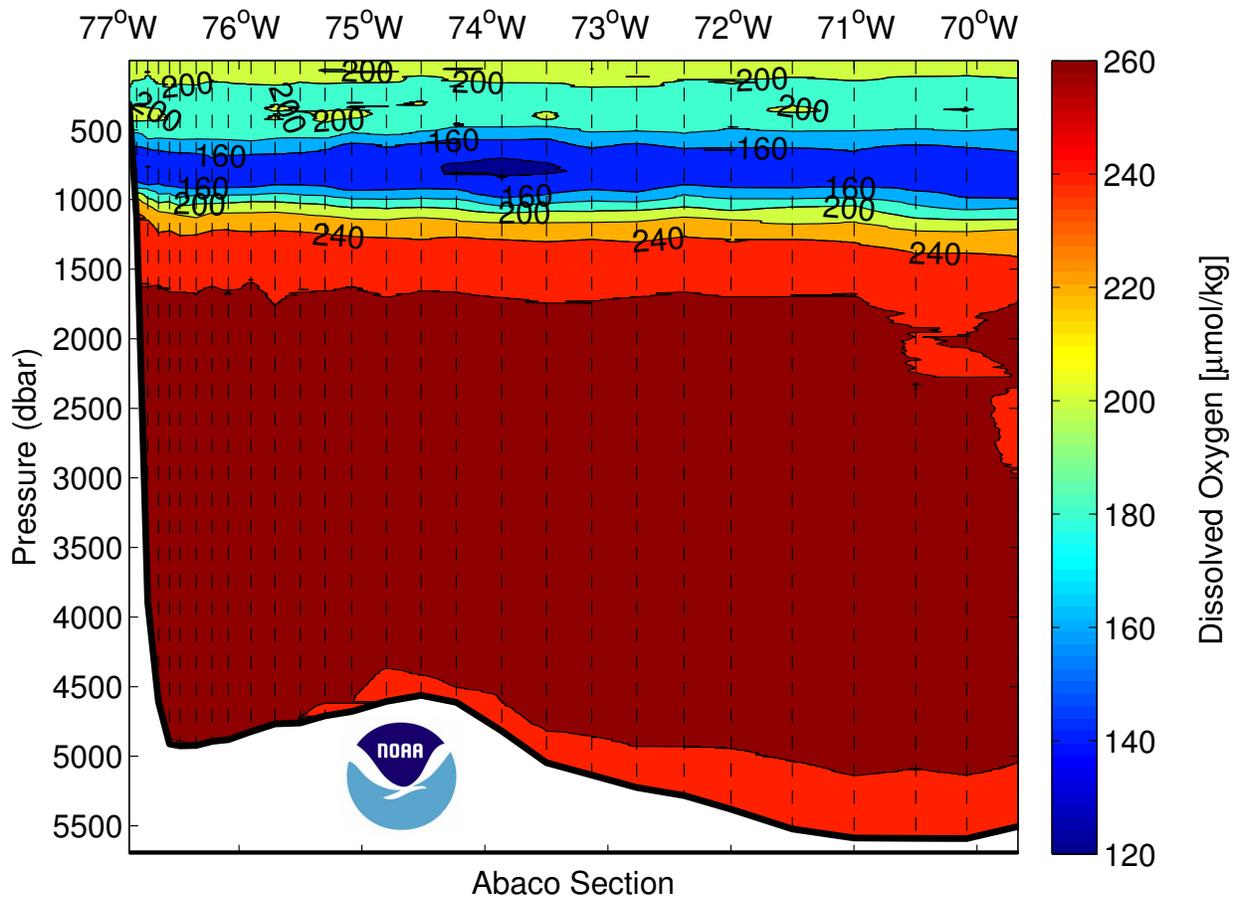


Figure 33: Dissolved Oxygen ( $\mu\text{mol/kg}$ ) section for the Abaco Section. Contour intervals are 10  $\mu\text{mol/kg}$ . Dashed vertical lines are the CTD station locations.

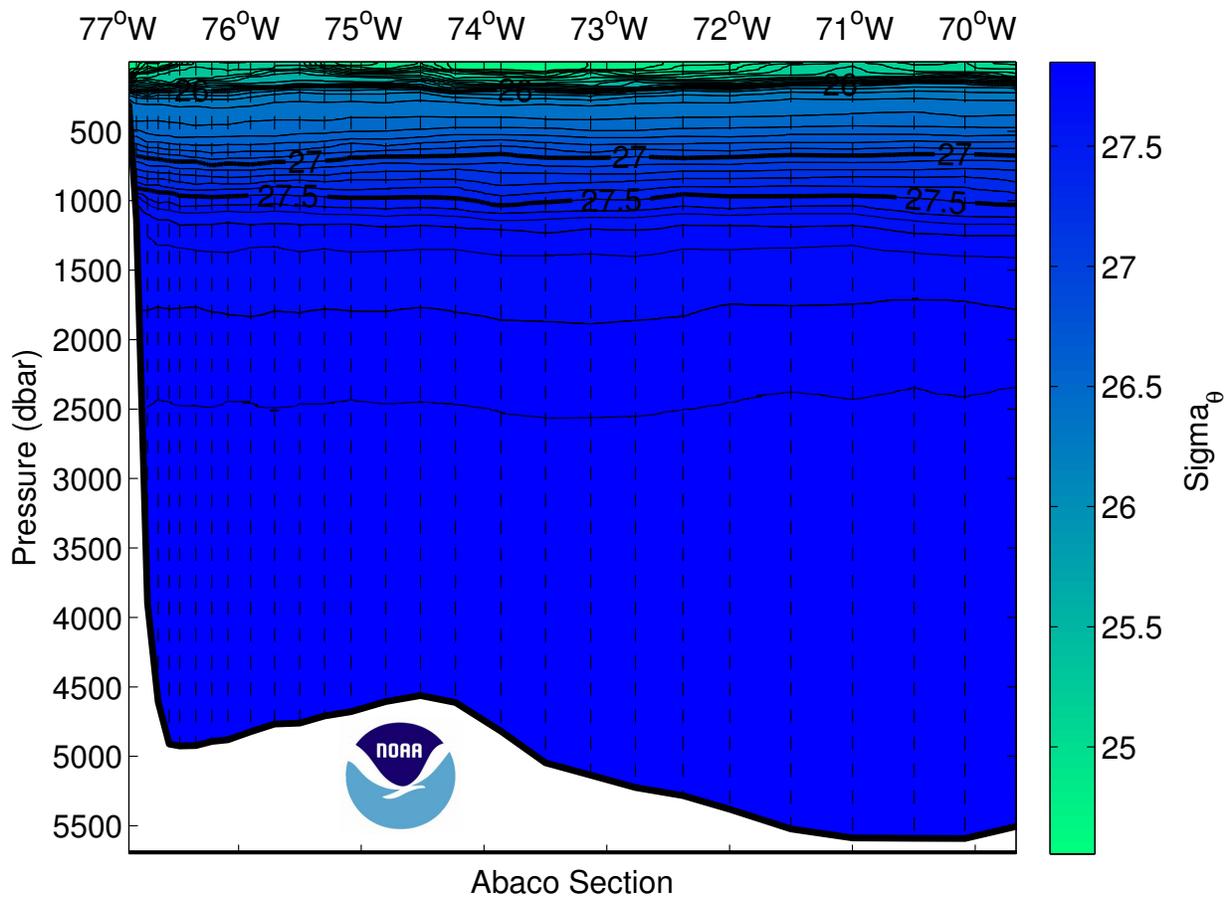


Figure 34: Potential density ( $\text{kg}/\text{m}^3$ ) section for the Abaco Section. Contour intervals are  $0.1 \text{ kg}/\text{m}^3$  for density values greater than  $27.5 \text{ kg}/\text{m}^3$  and  $0.05 \text{ kg}/\text{m}^3$  below  $27.5 \text{ kg}/\text{m}^3$ . Dashed vertical lines are the CTD station locations.

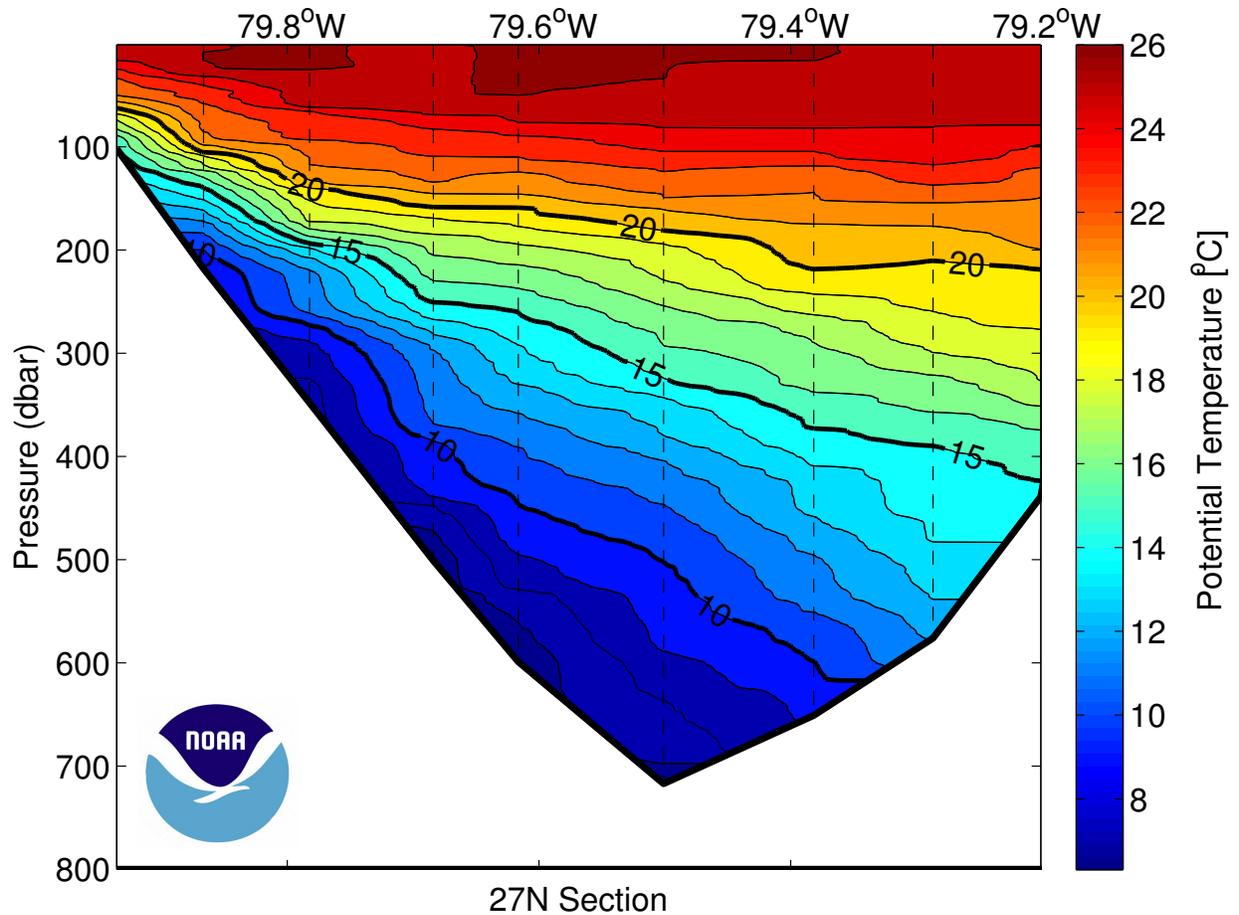


Figure 35: Potential Temperature ( $^{\circ}\text{C}$ ) section for the Florida Current North section. Contour intervals are  $1^{\circ}\text{C}$ . Dashed vertical lines are the CTD station locations.

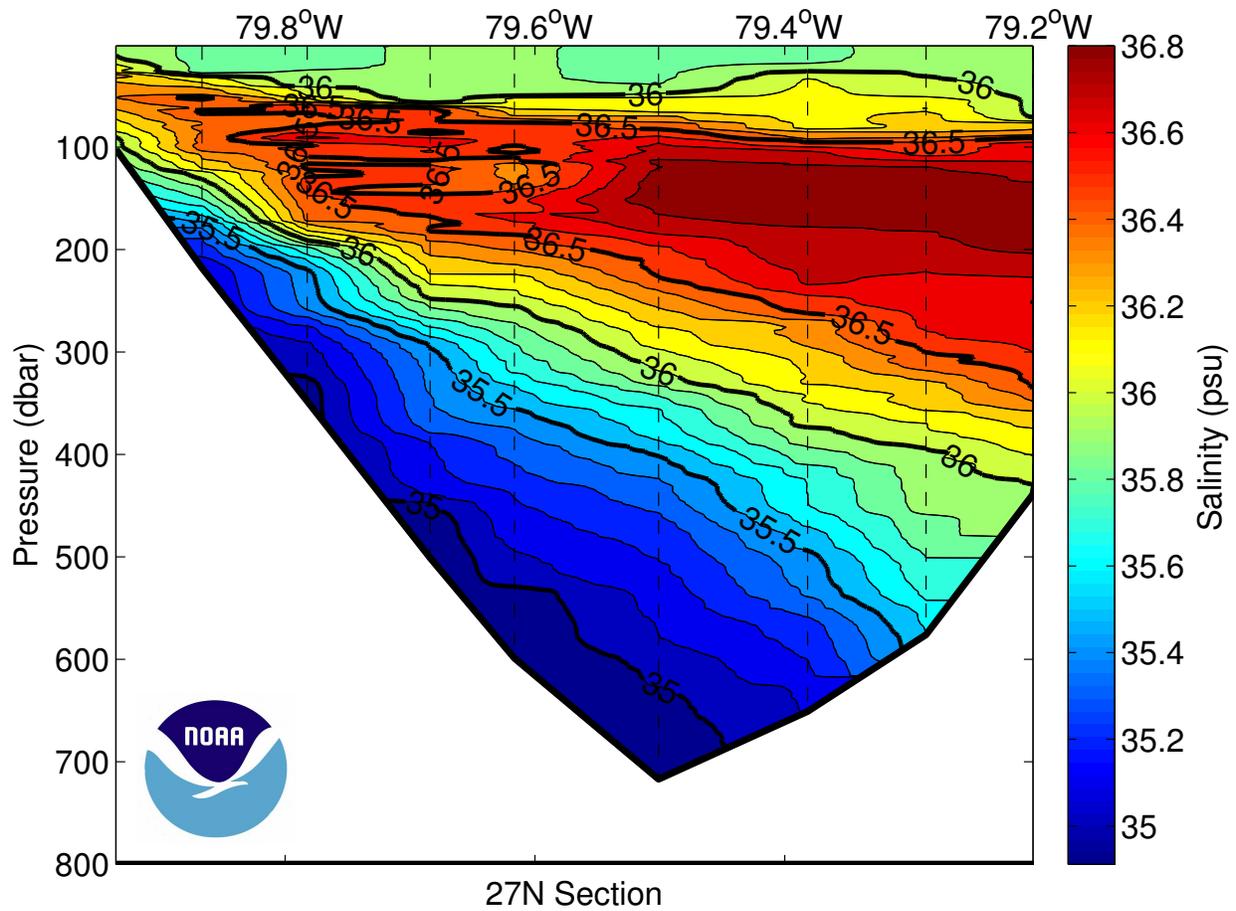


Figure 36: Salinity (PSS 78) section for the Florida Current North section. Contour intervals are 0.1. Dashed vertical lines are the CTD station locations.

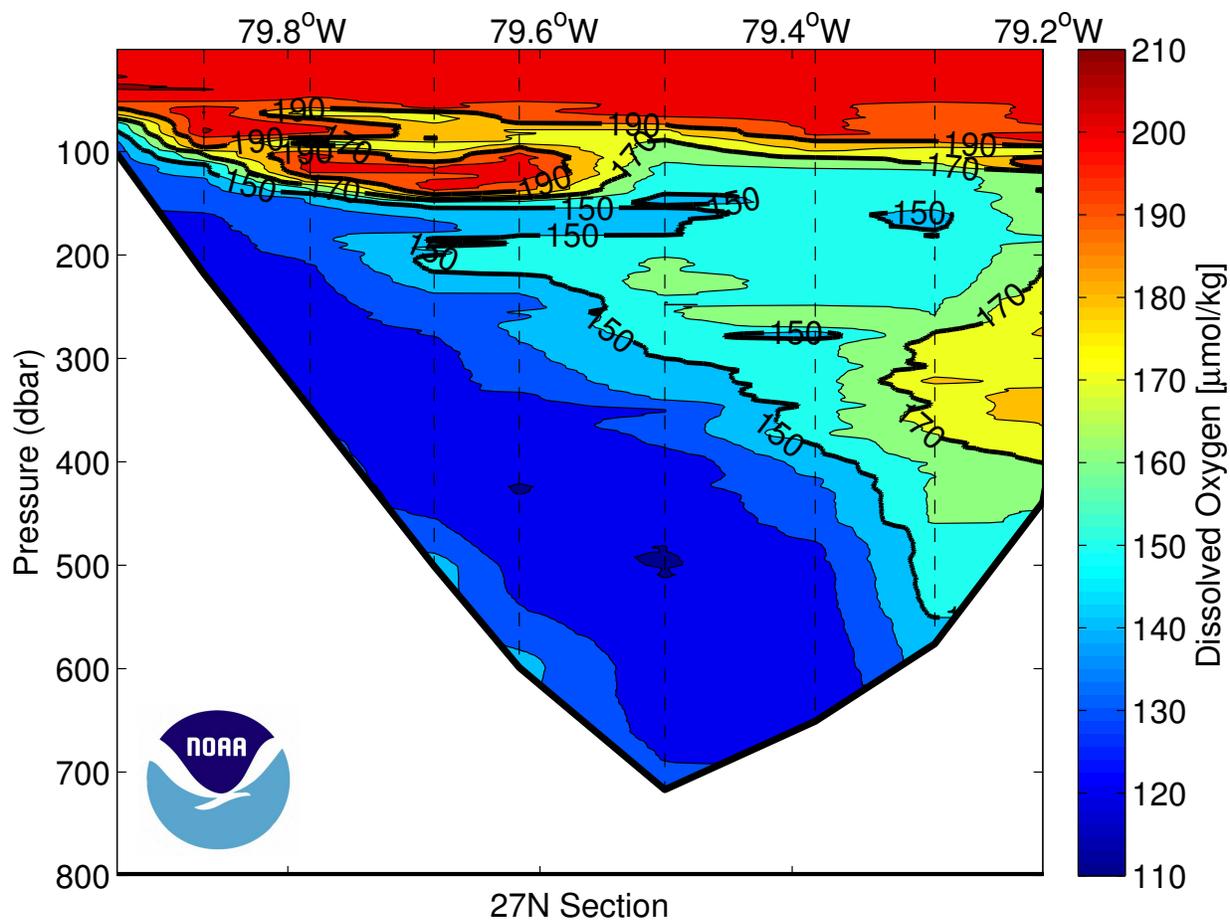


Figure 37: Dissolved Oxygen ( $\mu\text{mol/kg}$ ) section for the Florida Current North section. Contour intervals are  $10 \mu\text{mol/kg}$ . Dashed vertical lines are the CTD station locations.

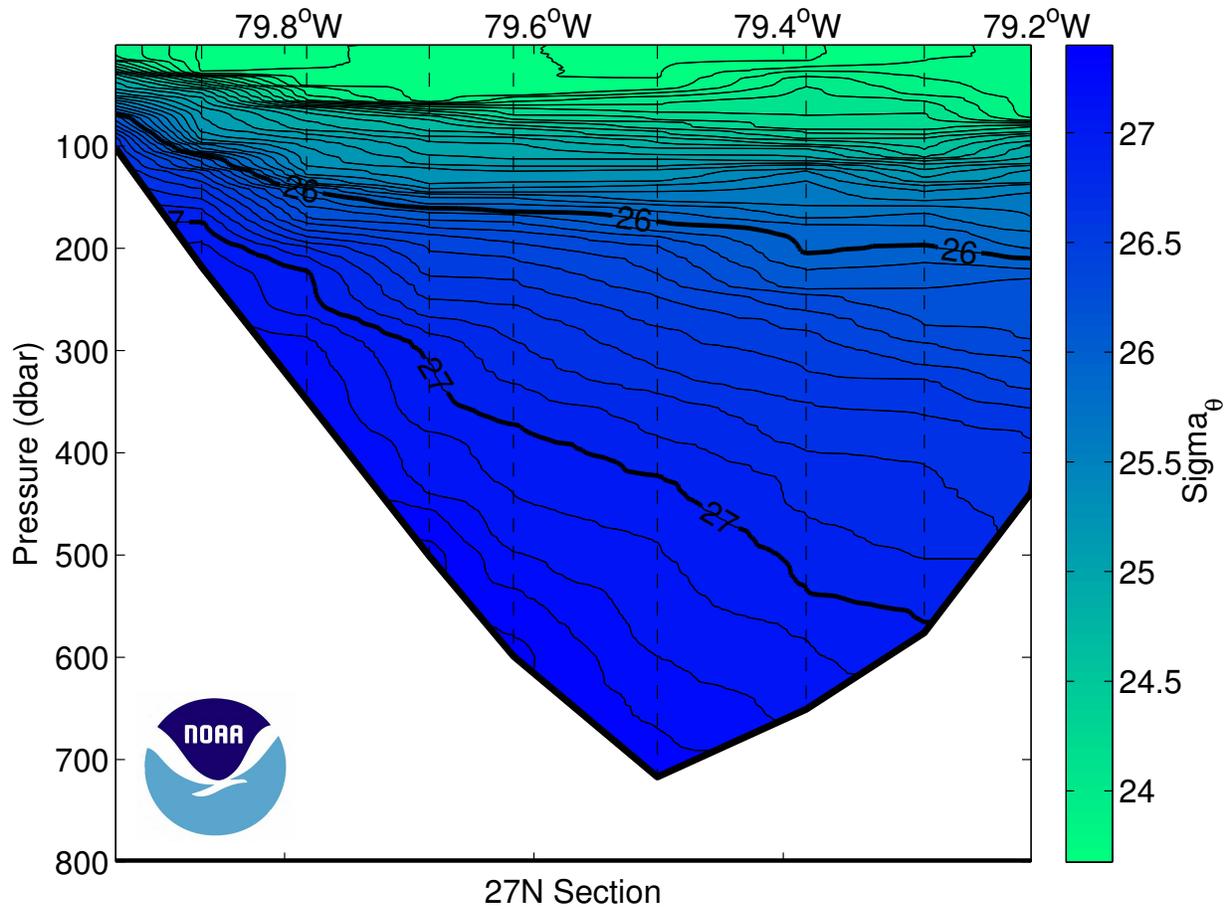


Figure 38: Potential density ( $\text{kg/m}^3$ ) section for the Florida Current North section. Contour intervals are  $0.1 \text{ kg/m}^3$ . Dashed vertical lines are the CTD station locations.

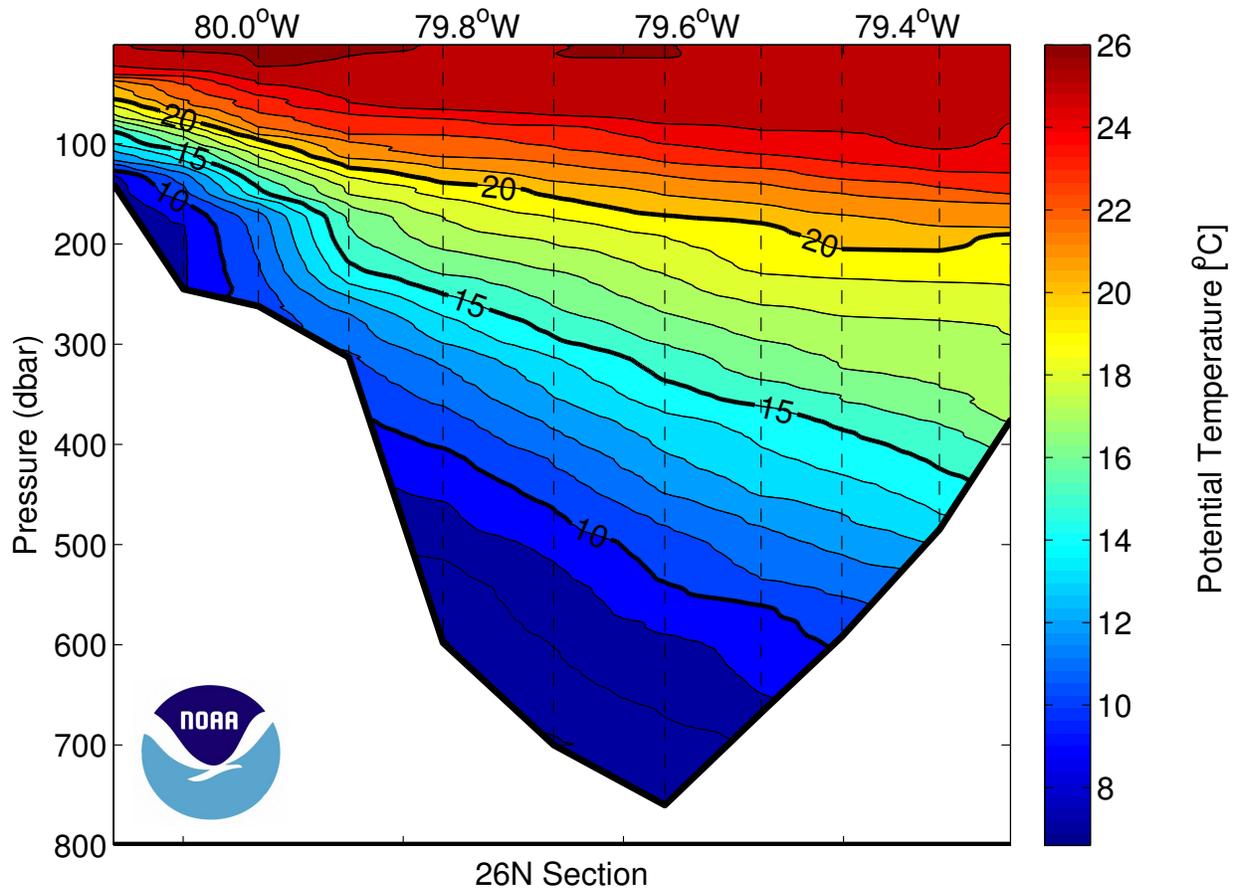


Figure 39: Potential Temperature (°C) section for the Florida Current South section. Contour intervals are 1°C. Dashed vertical lines are the CTD station locations.

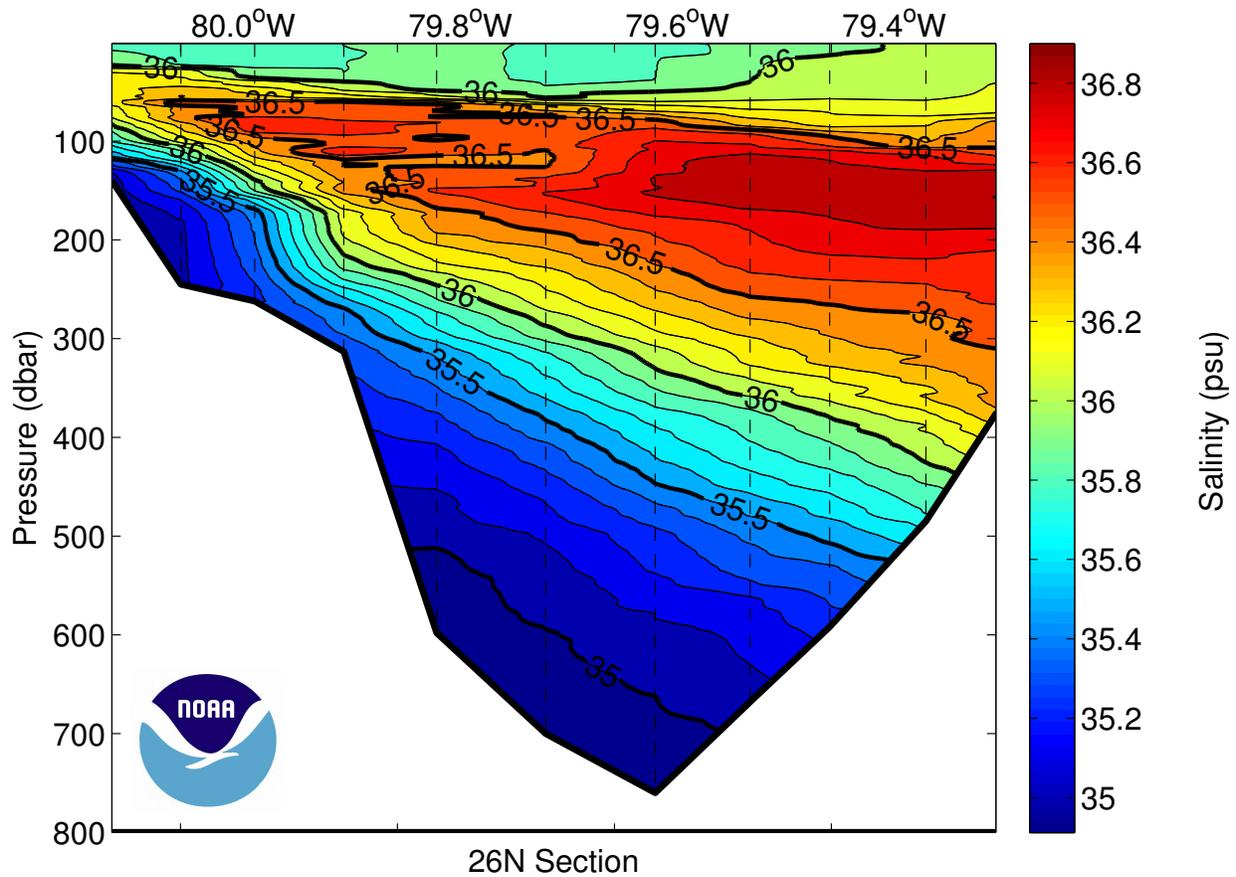


Figure 40: Salinity (PSS 78) section for the Florida Current South section. Contour intervals are 0.1. Dashed vertical lines are the CTD station locations.

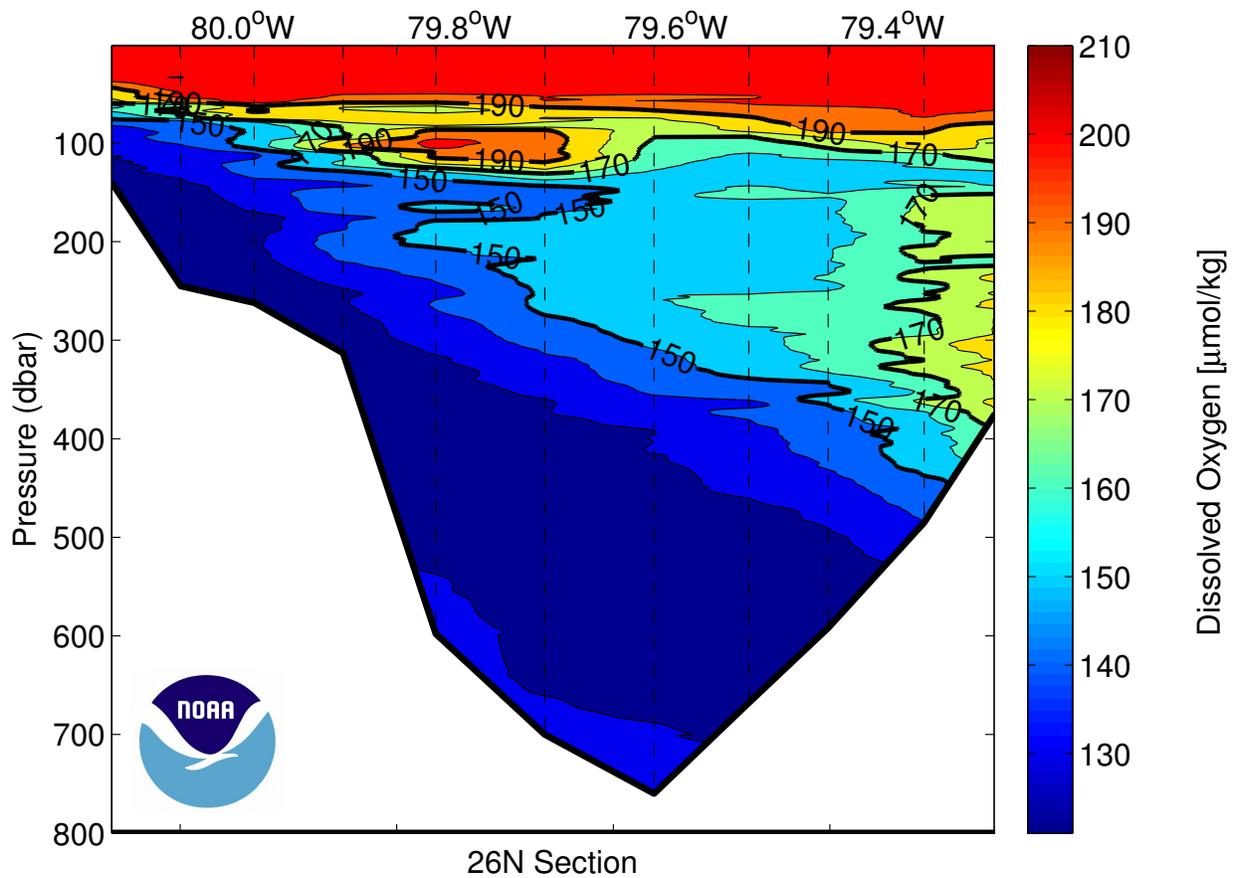


Figure 41: Dissolved Oxygen ( $\mu\text{mol/kg}$ ) section for the Florida Current South section. Contour intervals are  $10 \mu\text{mol/kg}$ . Dashed vertical lines are the CTD station locations.

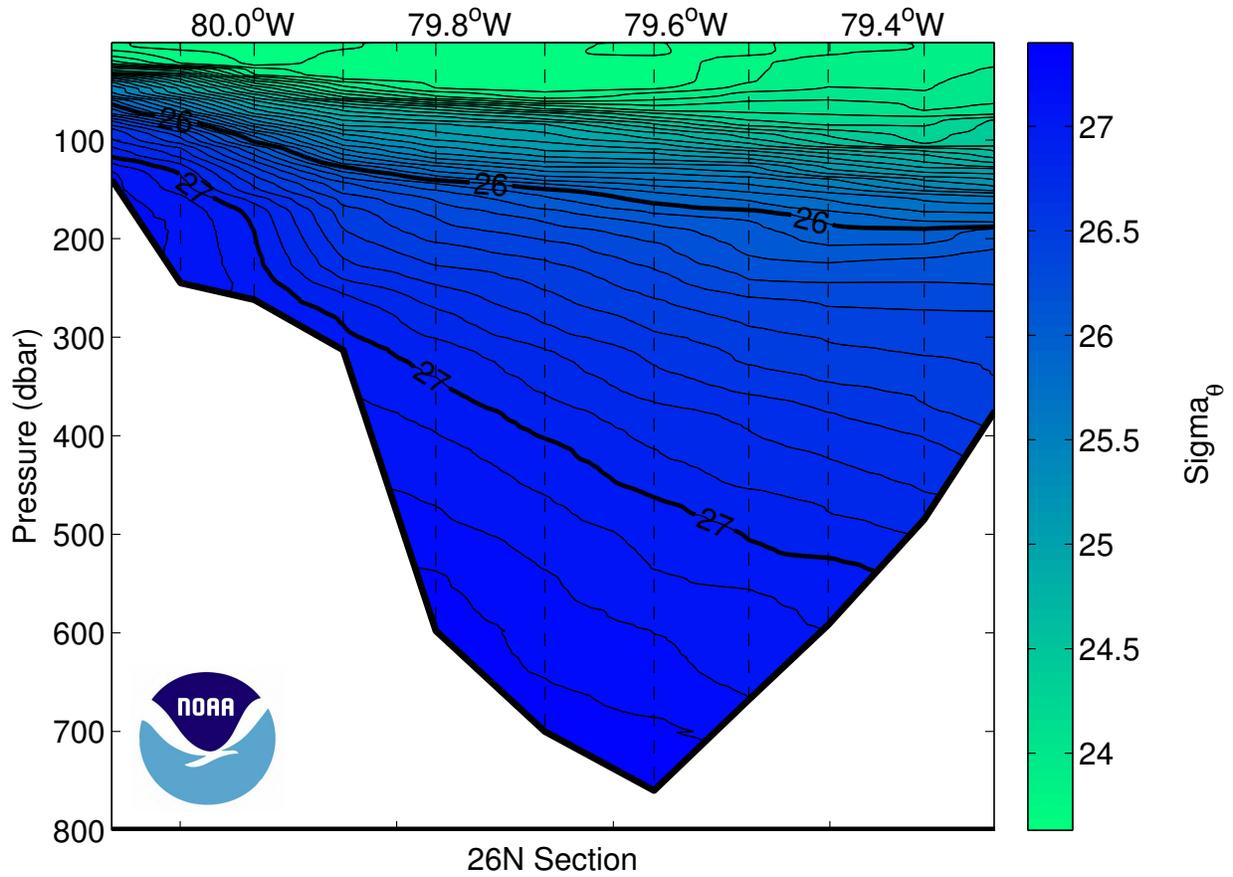


Figure 42: Potential density ( $\text{kg}/\text{m}^3$ ) section for the Florida Current South section. Contour intervals are  $0.1 \text{ kg}/\text{m}^3$ . Dashed vertical lines are the CTD station locations.

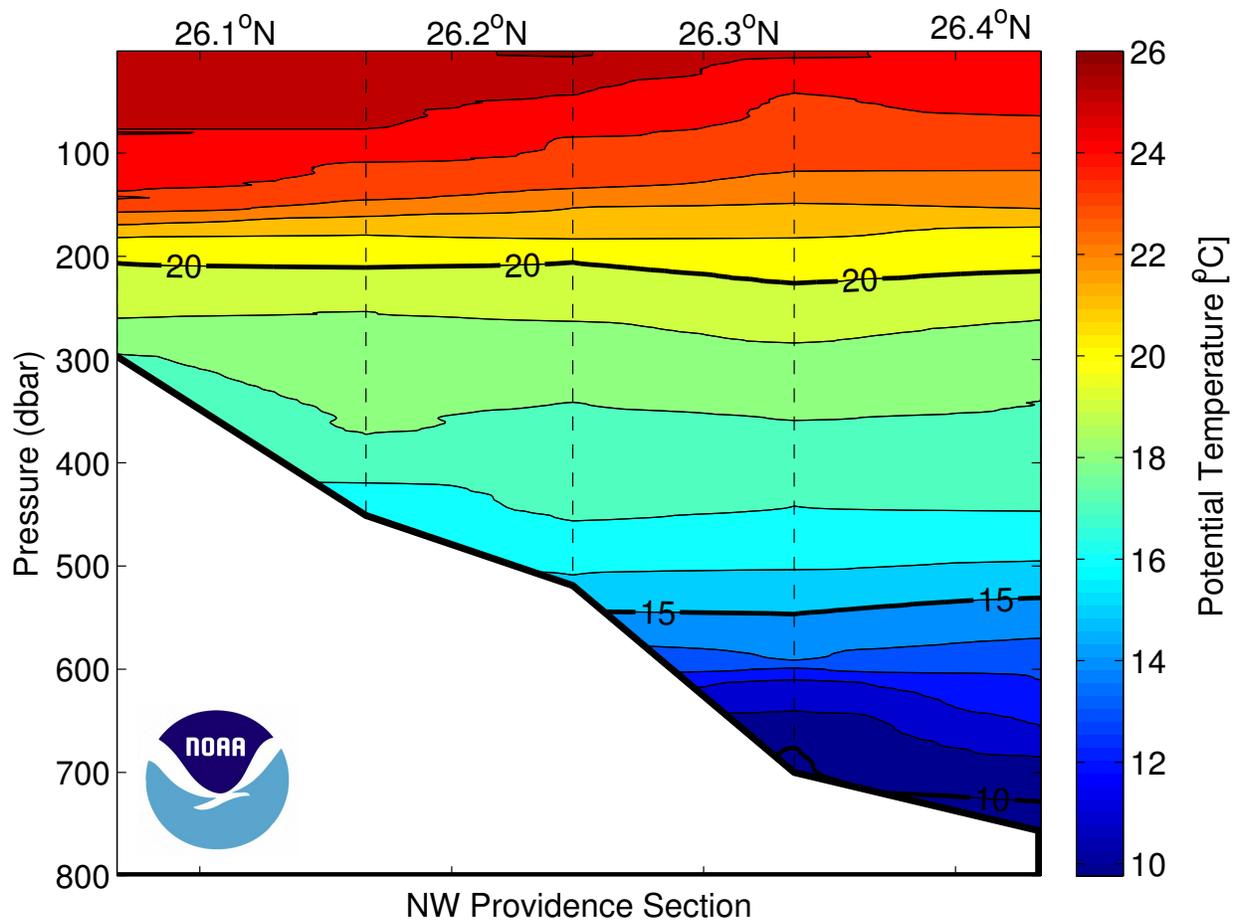


Figure 43: Potential Temperature ( $^{\circ}\text{C}$ ) section for the Northwest Providence Channel section. Contour intervals are  $1^{\circ}\text{C}$ . Dashed vertical lines are the CTD station locations.

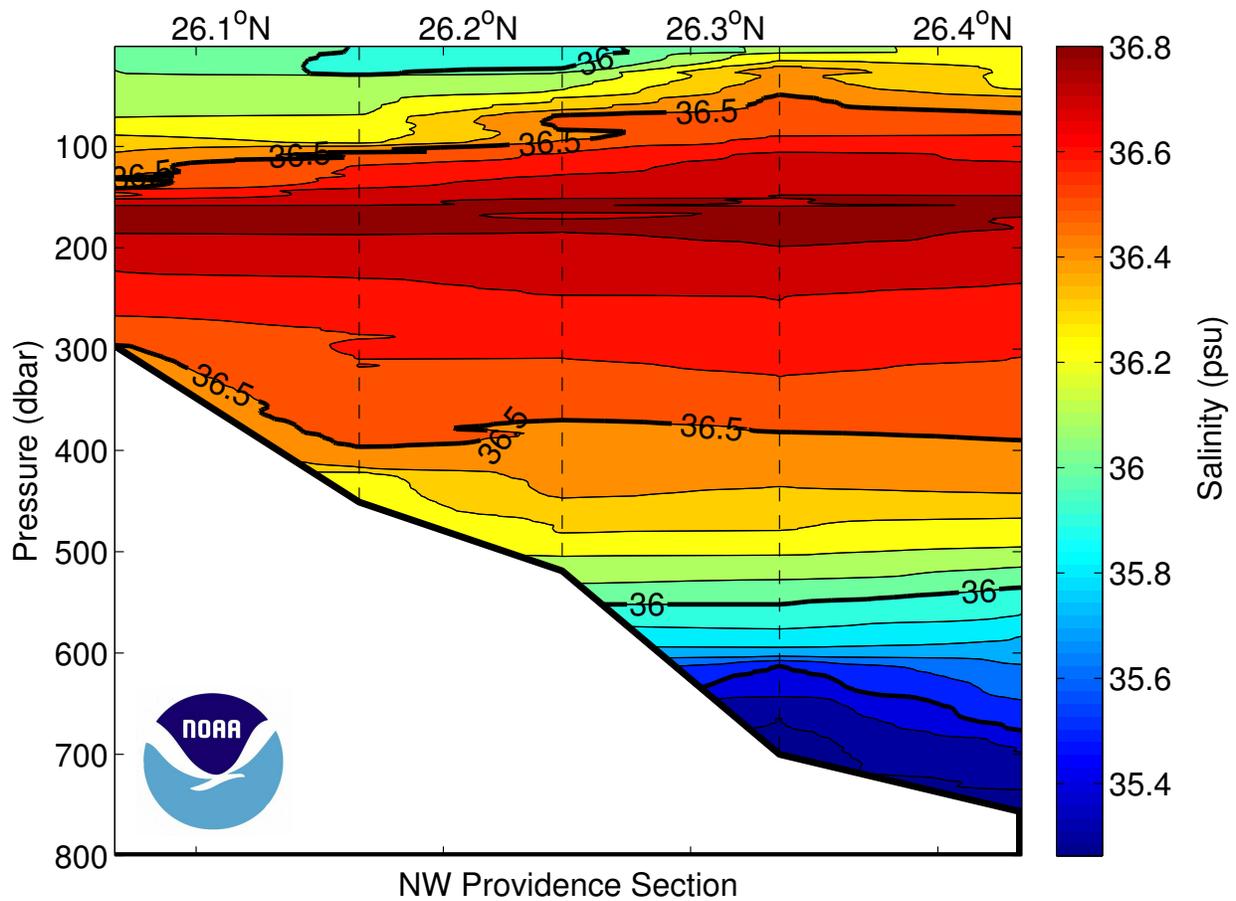


Figure 44: Salinity (PSS 78) section for the Northwest Providence Channel section. Contour intervals are 0.1. Dashed vertical lines are the CTD station locations.

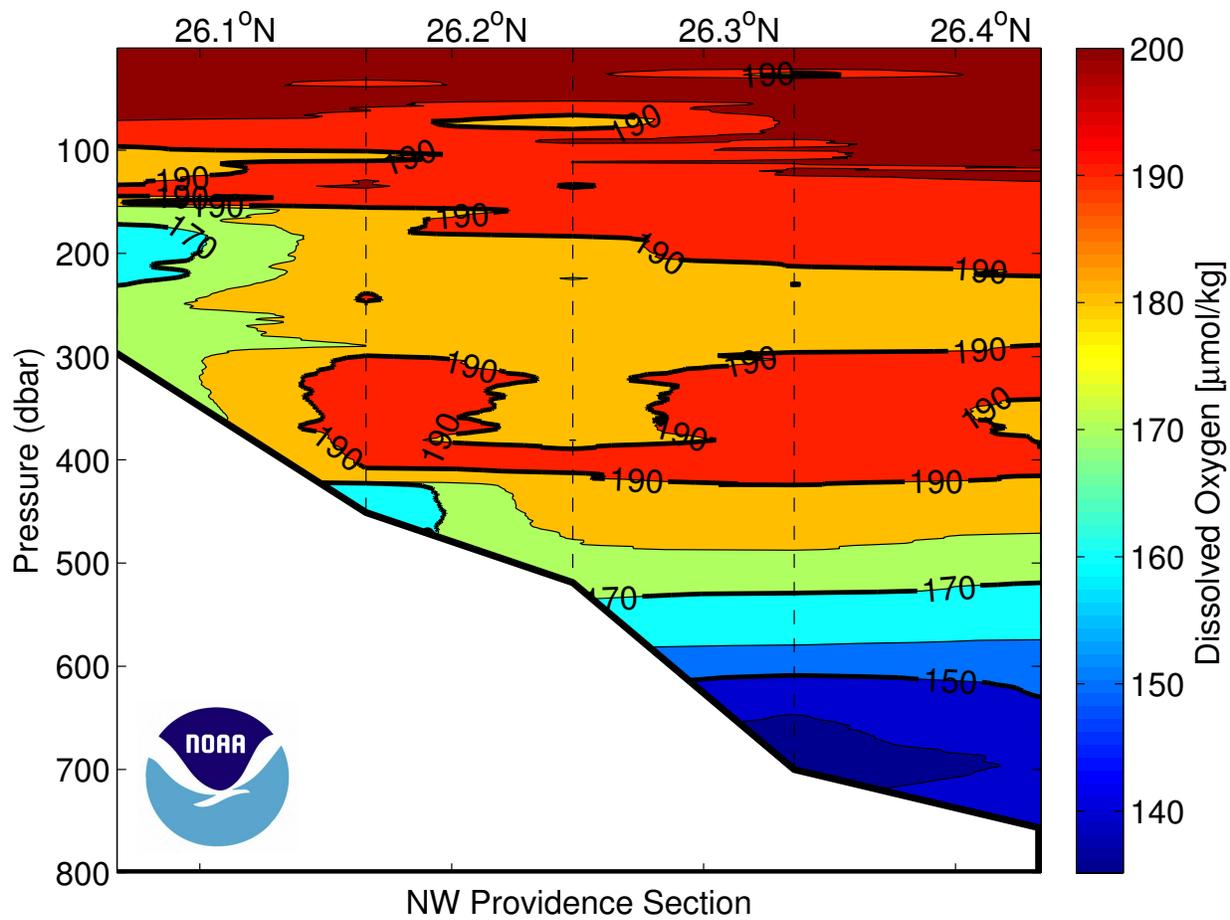


Figure 45: Dissolved Oxygen ( $\mu\text{mol/kg}$ ) section for the Northwest Providence Channel section. Contour intervals are 10  $\mu\text{mol/kg}$ . Dashed vertical lines are the CTD station locations.

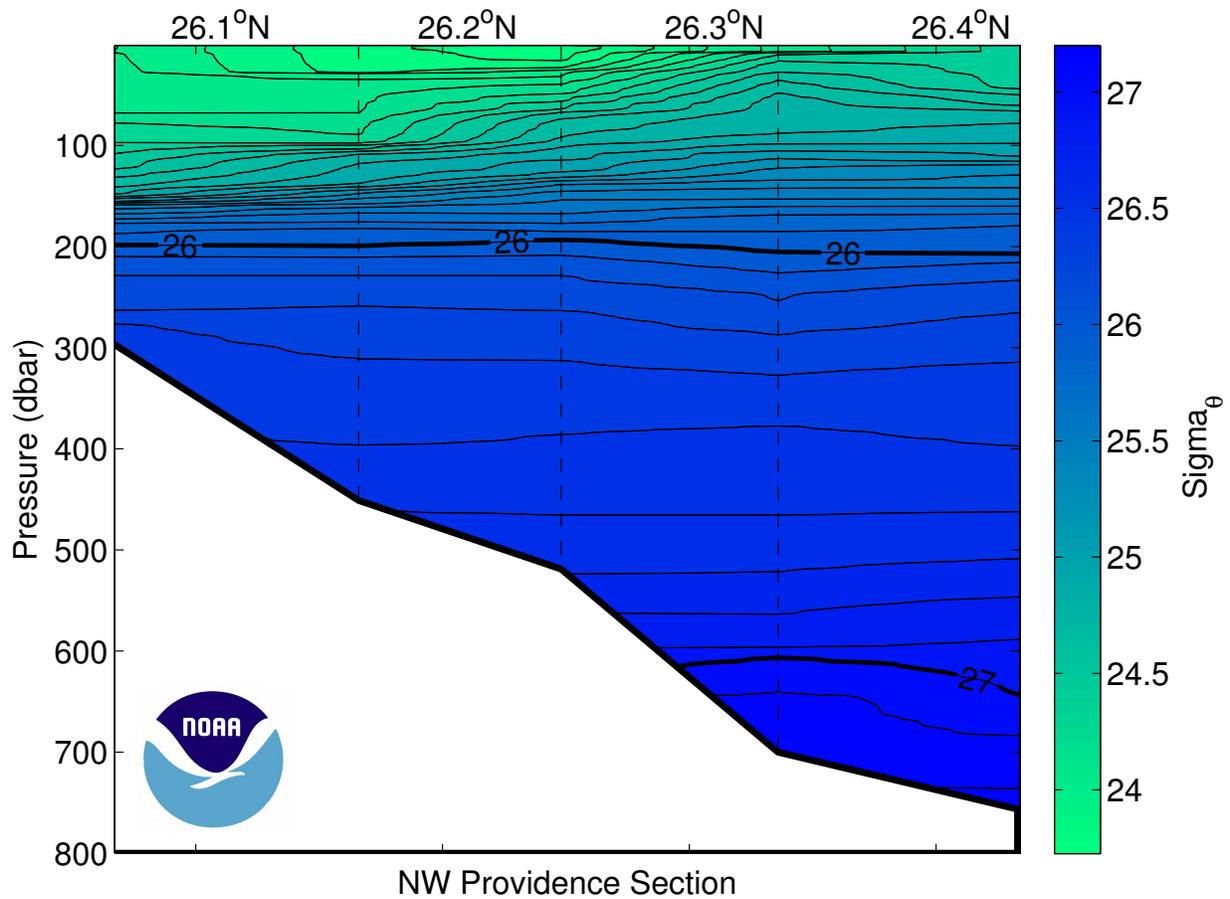


Figure 46: Potential density ( $\text{kg}/\text{m}^3$ ) section for the Northwest Providence Channel section. Contour intervals are  $0.1 \text{ kg}/\text{m}^3$ . Dashed vertical lines are the CTD station locations.

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## *11 Acknowledgements*

The successful completion of the cruise relied on dedicated assistance from many individuals on shore and on the NOAA ship Ronald H. Brown. Funded investigators in the project and members of the Western Boundary Time Series, and the RAPID/MOC programs were instrumental in planning and executing the cruise. The participants in the cruise showed dedication and camaraderie during their 21 days at sea. Officers and crew of the Ronald H. Brown exhibited a high degree of professionalism and assistance to accomplish the mission and to make us feel at home during the voyage.

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## *A WOCE Summary File*

Table 22: Abaco Cruise – WOCE Summary File

SHIP/CRS EXPCODE	WOCE SECT	STN	CAST	CAST TYPE	CAST DATE	UTC TIME	EVENT CODE	LAT	LOE	NAV	UNC DPH	HT BOT	ABV BOT	WIRE OUT	MAX PRS	NO BTLS	PARAM	COMMENTS	
WBTSNRHB	AB1202	0	1	ROS	02162012	2021	BE	30.022N	75.234W	GPS	1397			1411	1411	23	1,2	niskin 8 leaking niskin 18 did not fire	
WBTSNRHB	AB1202	1	1	ROS	02162012	2115	BO	30.022N	75.234W	GPS		216		1411	1411	23	1,2	niskin 8 leaking niskin 18 did not fire	
WBTSNRHB	AB1202	0	1	ROS	02162012	2141	EN	30.022N	75.234W	GPS									
WBTSNRHB	AB1202	1	1	ROS	02182012	0509	BE	26.499N	69.667W	GPS									
WBTSNRHB	AB1202	1	1	ROS	02182012	0655	BO	26.499N	69.667W	GPS	5400	7		5504	5505	17	1,2	niskin 8 leaking	
WBTSNRHB	AB1202	1	1	ROS	02182012	0938	EN	26.499N	69.667W	GPS									
WBTSNRHB	AB1202	2	1	ROS	02182012	1210	BE	26.499N	70.085W	GPS									
WBTSNRHB	AB1202	2	1	ROS	02182012	1354	BO	26.499N	70.085W	GPS	5484	7		5591	5592	23	1,2		
WBTSNRHB	AB1202	2	1	ROS	02182012	1700	EN	26.499N	70.085W	GPS									
WBTSNRHB	AB1202	3	1	ROS	02182012	2343	BE	26.499N	70.498W	GPS									
WBTSNRHB	AB1202	3	1	ROS	02182012	0133	BO	26.499N	70.498W	GPS	5480	8		5575	5588	23	1,2	niskin 19 leaky O-ring	
WBTSNRHB	AB1202	3	1	ROS	02192012	0331	EN	26.499N	70.498W	GPS									
WBTSNRHB	AB1202	4	1	ROS	02192012	0603	BE	26.500N	70.998W	GPS									
WBTSNRHB	AB1202	4	1	ROS	02192012	0749	BO	26.500N	70.998W	GPS	5478	6		5586	5586	23	1,2		
WBTSNRHB	AB1202	4	1	ROS	02192012	0956	EN	26.500N	70.998W	GPS									
WBTSNRHB	AB1202	5	1	ROS	02192012	1228	BE	26.500N	71.501W	GPS									
WBTSNRHB	AB1202	5	1	ROS	02192012	1414	BO	26.498N	71.501W	GPS	5417	6		5521	5523	23	1,2	niskin 8 leaking	
WBTSNRHB	AB1202	5	1	ROS	02192012	1659	EN	26.498N	71.501W	GPS									
WBTSNRHB	AB1202	6	1	ROS	02192012	1945	BE	26.500N	71.999W	GPS									
WBTSNRHB	AB1202	6	1	ROS	02192012	2124	BO	26.500N	71.999W	GPS	5280	7		5380	5381	23	1,2		
WBTSNRHB	AB1202	6	1	ROS	02192012	2320	EN	26.500N	71.999W	GPS									
WBTSNRHB	AB1202	7	1	ROS	02202012	0139	BE	26.500N	72.381W	GPS									
WBTSNRHB	AB1202	7	1	ROS	02202012	0318	BO	26.500N	72.381W	GPS	5177	5		5281	5275	23	1,2	niskin 6 leaking	
WBTSNRHB	AB1202	7	1	ROS	02202012	0514	EN	26.500N	72.381W	GPS									
WBTSNRHB	AB1202	8	1	ROS	02202012	0803	BE	26.500N	72.766W	GPS									
WBTSNRHB	AB1202	8	1	ROS	02202012	0943	BO	26.500N	72.766W	GPS	5128	6		5224	5225	23	1,2		
WBTSNRHB	AB1202	8	1	ROS	02202012	1143	EN	26.499N	72.766W	GPS									
WBTSNRHB	AB1202	9	1	ROS	02202012	1351	BE	26.499N	73.132W	GPS									
WBTSNRHB	AB1202	9	1	ROS	02202012	1528	BO	26.498N	73.131W	GPS	5033	5		5135	5127	23	1,2		
WBTSNRHB	AB1202	9	1	ROS	02202012	1731	EN	26.498N	73.131W	GPS									
WBTSNRHB	AB1202	10	1	ROS	02202012	1936	BE	26.499N	73.501W	GPS									
WBTSNRHB	AB1202	10	1	ROS	02202012	2111	BO	26.499N	73.500W	GPS	4955	6		5046	5047	23	1,2	niskin 6 leaking	
WBTSNRHB	AB1202	10	1	ROS	02202012	2343	EN	26.499N	73.500W	GPS									
WBTSNRHB	AB1202	11	1	ROS	02212012	0147	BE	26.500N	73.863W	GPS									
WBTSNRHB	AB1202	11	1	ROS	02212012	0320	BO	26.500N	73.863W	GPS	4733	7		4818	4818	23	1,2		
WBTSNRHB	AB1202	11	1	ROS	02212012	0509	EN	26.500N	73.863W	GPS									
WBTSNRHB	AB1202	12	1	ROS	02212012	0711	BE	26.502N	74.233W	GPS									
WBTSNRHB	AB1202	12	1	ROS	02212012	0838	BO	26.500N	74.233W	GPS	4533	7		4611	4612	23	1,2		
WBTSNRHB	AB1202	12	1	ROS	02212012	1028	EN	26.500N	74.233W	GPS									
WBTSNRHB	AB1202	13	1	ROS	02212012	1158	BE	26.500N	74.516W	GPS									
WBTSNRHB	AB1202	13	1	ROS	02212012	1326	BO	26.500N	74.518W	GPS	4483	8		4560	4560	23	1,2		
WBTSNRHB	AB1202	13	1	ROS	02212012	1512	EN	26.500N	74.518W	GPS									
WBTSNRHB	AB1202	14	1	ROS	02212012	1644	BE	26.500N	74.801W	GPS									
WBTSNRHB	AB1202	14	1	ROS	02212012	1808	BO	26.500N	74.801W	GPS	4525	6		4605	4604	23	1,2		
WBTSNRHB	AB1202	14	1	ROS	02212012	2030	EN	26.500N	74.801W	GPS									
WBTSNRHB	AB1202	15	1	ROS	02212012	2155	BE	26.500N	75.083W	GPS									
WBTSNRHB	AB1202	15	1	ROS	02212012	2320	BO	26.500N	75.083W	GPS	4595	8		4676	4676	23	1,2		
WBTSNRHB	AB1202	15	1	ROS	02222012	0103	EN	26.500N	75.083W	GPS									
WBTSNRHB	AB1202	16	1	ROS	02222012	0207	BE	26.500N	75.290W	GPS									
WBTSNRHB	AB1202	16	1	ROS	02222012	0344	BO	26.500N	75.300W	GPS	4628	8		4707	4710	23	1,2		
WBTSNRHB	AB1202	16	1	ROS	02222012	0530	EN	26.500N	75.300W	GPS									
WBTSNRHB	AB1202	17	1	ROS	02222012	0641	BE	26.500N	75.503W	GPS									
WBTSNRHB	AB1202	17	1	ROS	02222012	0810	BO	26.500N	75.500W	GPS	4677	7		4760	4761	23	1,2		
WBTSNRHB	AB1202	17	1	ROS	02222012	1000	EN	26.500N	75.511W	GPS									
WBTSNRHB	AB1202	18	1	ROS	02222012	1136	BE	26.499N	75.704W	GPS									
WBTSNRHB	AB1202	18	1	ROS	02222012	1306	BO	26.500N	75.707W	GPS	4683	7		4766	4766	23	1,2		
WBTSNRHB	AB1202	18	1	ROS	02222012	1453	EN	26.499N	75.712W	GPS									
WBTSNRHB	AB1202	19	1	ROS	02222012	1553	BE	26.503N	75.901W	GPS	4739	6		4823	4824	23	1,2		
WBTSNRHB	AB1202	19	1	ROS	02222012	1725	BO	26.503N	75.901W	GPS									
WBTSNRHB	AB1202	19	1	ROS	02222012	2001	EN	26.503N	75.901W	GPS									
WBTSNRHB	AB1202	20	1	ROS	02222012	2120	BE	26.501N	76.087W	GPS									
WBTSNRHB	AB1202	20	1	ROS	02222012	2252	BO	26.501N	76.087W	GPS	4795	7		4881	4882	23	1,2		

WBTSNSRHH	AB1202	20	1	ROS	02232012	0037	EN	26.502N	76.087W	GPS	4805	7	4892	4892	23	1,2			
WBTSNSRHH	AB1202	21	1	ROS	02232012	0129	BE	26.500N	76.203W	GPS									
WBTSNSRHH	AB1202	21	1	ROS	02232012	0309	BO	26.500N	76.218W	GPS									
WBTSNSRHH	AB1202	21	1	ROS	02232012	0458	EN	26.500N	76.218W	GPS									
WBTSNSRHH	AB1202	22	1	ROS	02232012	0606	BE	26.501N	76.348W	GPS									
WBTSNSRHH	AB1202	22	1	ROS	02232012	0738	BO	26.501N	76.347W	GPS									
WBTSNSRHH	AB1202	22	1	ROS	02232012	0934	EN	26.500N	76.347W	GPS									
WBTSNSRHH	AB1202	23	1	ROS	02232012	1041	BE	26.500N	76.479W	GPS									
WBTSNSRHH	AB1202	23	1	ROS	02232012	1213	BO	26.500N	76.479W	GPS									
WBTSNSRHH	AB1202	23	1	ROS	02232012	1408	EN	26.500N	76.479W	GPS									
WBTSNSRHH	AB1202	24	1	ROS	02232012	1538	BE	26.500N	76.565W	GPS									
WBTSNSRHH	AB1202	24	1	ROS	02232012	1707	BO	26.500N	76.565W	GPS									
WBTSNSRHH	AB1202	24	1	ROS	02232012	1851	EN	26.500N	76.564W	GPS									
WBTSNSRHH	AB1202	25	1	ROS	02232012	1945	BE	26.508N	76.654W	GPS									
WBTSNSRHH	AB1202	25	1	ROS	02232012	2111	BO	26.508N	76.654W	GPS									
WBTSNSRHH	AB1202	25	1	ROS	02232012	2252	EN	26.508N	76.654W	GPS									
WBTSNSRHH	AB1202	26	1	ROS	02232012	2336	BE	26.500N	76.742W	GPS									
WBTSNSRHH	AB1202	26	1	ROS	02242012	0050	BO	26.499N	76.741W	GPS									
WBTSNSRHH	AB1202	26	1	ROS	02242012	0220	EN	26.499N	76.741W	GPS									
WBTSNSRHH	AB1202	27	1	ROS	02242012	0335	BE	26.516N	76.831W	GPS									
WBTSNSRHH	AB1202	27	1	ROS	02242012	0407	BO	26.516N	76.831W	GPS									
WBTSNSRHH	AB1202	27	1	ROS	02242012	0441	EN	26.516N	76.831W	GPS									
WBTSNSRHH	AB1202	28	1	ROS	02242012	0545	BE	26.525N	76.892W	GPS									
WBTSNSRHH	AB1202	28	1	ROS	02242012	0617	BO	26.525N	76.892W	GPS									
WBTSNSRHH	AB1202	28	1	ROS	02242012	0638	EN	26.525N	76.892W	GPS									
WBTSNSRHH	AB1202	29	1	ROS	02242012	2336	BE	26.500N	75.704W	GPS									
WBTSNSRHH	AB1202	29	1	ROS	02242012	0312	BO	26.500N	75.703W	GPS									
WBTSNSRHH	AB1202	29	1	ROS	02252012	0316	EN	26.500N	75.703W	GPS									
WBTSNSRHH	AB1202	30	1	ROS	02262012	0006	BE	26.500N	76.088W	GPS									
WBTSNSRHH	AB1202	30	1	ROS	02262012	0122	BO	26.501N	76.090W	GPS									
WBTSNSRHH	AB1202	30	1	ROS	02262012	0328	EN	26.503N	76.093W	GPS									
WBTSNSRHH	AB1202	31	1	ROS	02282012	0232	BE	26.503N	76.538W	GPS									
WBTSNSRHH	AB1202	31	1	ROS	02282012	0400	BO	26.503N	76.538W	GPS									
WBTSNSRHH	AB1202	31	1	ROS	02282012	0615	EN	26.503N	76.538W	GPS									
WBTSNSRHH	AB1202	32	1	ROS	02292012	0123	BE	26.500N	76.744W	GPS									
WBTSNSRHH	AB1202	32	1	ROS	02292012	0237	BO	26.500N	76.743W	GPS									
WBTSNSRHH	AB1202	32	1	ROS	02292012	0420	EN	26.500N	76.744W	GPS									
WBTSNSRHH	AB1202	33	1	ROS	02292012	2351	BE	26.499N	76.743W	GPS									
WBTSNSRHH	AB1202	33	1	ROS	03012012	0121	BO	26.499N	76.743W	GPS									
WBTSNSRHH	AB1202	33	1	ROS	03012012	0241	EN	26.499N	76.743W	GPS									
WBTSNSRHH	AB1202	34	1	ROS	03012012	1454	BE	26.434N	78.667W	GPS									
WBTSNSRHH	AB1202	34	1	ROS	03012012	1515	BO	26.434N	78.667W	GPS									
WBTSNSRHH	AB1202	34	1	ROS	03012012	1545	EN	26.434N	78.667W	GPS									
WBTSNSRHH	AB1202	35	1	ROS	03012012	1701	BE	26.336N	78.716W	GPS									
WBTSNSRHH	AB1202	35	1	ROS	03012012	1721	BO	26.336N	78.716W	GPS									
WBTSNSRHH	AB1202	35	1	ROS	03012012	1749	EN	26.336N	78.716W	GPS									
WBTSNSRHH	AB1202	36	1	ROS	03012012	2006	BE	26.249N	78.763W	GPS									
WBTSNSRHH	AB1202	36	1	ROS	03012012	2021	BO	26.248N	78.762W	GPS									
WBTSNSRHH	AB1202	36	1	ROS	03012012	2041	EN	26.248N	78.762W	GPS									
WBTSNSRHH	AB1202	37	1	ROS	03012012	2123	BE	26.166N	78.800W	GPS									
WBTSNSRHH	AB1202	37	1	ROS	03012012	2138	BO	26.166N	78.800W	GPS									
WBTSNSRHH	AB1202	37	1	ROS	03012012	2158	EN	26.166N	78.800W	GPS									
WBTSNSRHH	AB1202	38	1	ROS	03012012	2255	BE	26.067N	78.850W	GPS									
WBTSNSRHH	AB1202	38	1	ROS	03012012	2309	BO	26.067N	78.850W	GPS									
WBTSNSRHH	AB1202	38	1	ROS	03012012	2325	EN	26.067N	78.850W	GPS									
WBTSNSRHH	AB1202	39	1	ROS	03022012	0406	BE	26.056N	79.226W	GPS									
WBTSNSRHH	AB1202	39	1	ROS	03022012	0437	BO	26.057N	79.249W	GPS									
WBTSNSRHH	AB1202	39	1	ROS	03022012	0458	EN	26.063N	79.251W	GPS									
WBTSNSRHH	AB1202	40	1	ROS	03022012	0542	BE	26.040N	79.312W	GPS									
WBTSNSRHH	AB1202	40	1	ROS	03022012	0600	BO	26.052N	79.313W	GPS									
WBTSNSRHH	AB1202	40	1	ROS	03022012	0624	EN	26.065N	79.309W	GPS									
WBTSNSRHH	AB1202	41	1	ROS	03022012	0722	BE	26.041N	79.403W	GPS									
WBTSNSRHH	AB1202	41	1	ROS	03022012	0740	BO	26.052N	79.400W	GPS									
WBTSNSRHH	AB1202	41	1	ROS	03022012	0806	EN	26.067N	79.397W	GPS									
WBTSNSRHH	AB1202	42	1	ROS	03022012	0859	BE	26.035N	79.480W	GPS									
WBTSNSRHH	AB1202	42	1	ROS	03022012	0922	BO	26.041N	79.474W	GPS									



*B WOCE Bottle Summary File*

Table 23: Abaco Cruise - WOCE Bottle Summary File

SHIP/CHS EXPCODE	WOCE SECT	STN	CAST	BTL#	BTL# Flag	UTC TIME	LAT	LOX	DEPTH	CTD PRS	CTD TMP	CTD SAL	CTD SAL FLAG	BTL SAL	SAL FLAG	CTD OXY	CTD OXY FLAG	BTL OXY	OXY FLAG
WBTSRHB	AB1302	0	1	1	2	20120216	30.022N	75.234W	1397	1411	4.694	35.021	2	35.022	2	250.3	2	247.3	2
WBTSRHB	AB1302	0	1	2	2	20120216	30.022N	75.234W	1397	1411	4.693	35.021	2	35.021	2	250.3	2	247.2	2
WBTSRHB	AB1302	0	1	3	2	20120216	30.022N	75.234W	1397	1411	4.699	35.021	2	35.022	2	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	4	2	20120216	30.022N	75.234W	1397	1411	4.697	35.021	2	35.023	2	250.2	2	247.4	2
WBTSRHB	AB1302	0	1	5	2	20120216	30.022N	75.234W	1397	1411	4.692	35.021	2	35.023	2	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	6	2	20120216	30.022N	75.234W	1397	1411	4.692	35.021	2	35.023	2	250.4	2	247.3	2
WBTSRHB	AB1302	0	1	7	2	20120216	30.022N	75.234W	1397	1411	4.695	35.021	2	35.022	2	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	8	2	20120216	30.022N	75.234W	1397	1411	4.696	35.021	2	35.022	2	250.4	2	246.1	2
WBTSRHB	AB1302	0	1	9	2	20120216	30.022N	75.234W	1397	1411	4.695	35.021	2	35.026	4	250.4	2	248.4	2
WBTSRHB	AB1302	0	1	10	2	20120216	30.022N	75.234W	1397	1411	4.692	35.021	2	35.024	2	250.5	2	247.5	2
WBTSRHB	AB1302	0	1	11	2	20120216	30.022N	75.234W	1397	1411	4.693	35.021	2	35.023	2	250.4	2	247.5	2
WBTSRHB	AB1302	0	1	12	2	20120216	30.022N	75.234W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	13	2	20120216	30.022N	75.234W	1397	1411	4.695	35.021	2	35.021	2	250.4	2	247.5	2
WBTSRHB	AB1302	0	1	14	2	20120216	30.022N	75.234W	1397	1411	4.694	35.021	2	35.023	2	250.4	2	247.7	2
WBTSRHB	AB1302	0	1	15	2	20120216	30.022N	75.234W	1396	1411	4.693	35.021	2	35.024	2	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	16	2	20120216	30.022N	75.234W	1396	1411	4.693	35.020	2	35.026	4	250.6	2	247.6	2
WBTSRHB	AB1302	0	1	17	2	20120216	30.022N	75.234W	1396	1411	4.694	35.020	2	-999.000	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	18	2	20120216	30.022N	75.234W	1396	1411	4.694	35.020	2	-999.000	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	19	2	20120216	30.022N	75.234W	1396	1411	4.691	35.020	2	-999.000	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	0	1	20	2	20120216	30.022N	75.234W	1396	1411	4.691	35.020	2	-999.000	9	250.5	2	248.4	2
WBTSRHB	AB1302	0	1	21	2	20120216	30.022N	75.234W	1396	1411	4.693	35.020	2	-999.000	9	250.6	2	247.4	2
WBTSRHB	AB1302	0	1	22	2	20120216	30.022N	75.234W	1396	1411	4.693	35.020	2	-999.000	9	250.6	2	247.0	2
WBTSRHB	AB1302	0	1	23	2	20120216	30.022N	75.234W	1396	1411	4.692	35.020	2	-999.000	9	250.6	2	247.1	2
WBTSRHB	AB1302	0	1	24	2	20120216	30.022N	75.234W	1396	1411	4.690	35.020	2	-999.000	9	250.6	2	247.1	2
WBTSRHB	AB1302	1	1	1	2	20120218	26.499N	69.667W	5399	5504	2.131	34.857	2	34.856	2	253.1	2	256.9	4
WBTSRHB	AB1302	1	1	2	2	20120218	26.499N	69.667W	4997	5089	2.195	34.872	2	34.871	2	258.3	2	257.1	2
WBTSRHB	AB1302	1	1	3	2	20120218	26.499N	69.667W	-999	-999	-999.000	-999.000	9	-999.000	9	268.9	2	-999.0	9
WBTSRHB	AB1302	1	1	4	2	20120218	26.499N	69.667W	3970	4034	2.357	34.901	2	34.899	2	268.9	2	268.1	2
WBTSRHB	AB1302	1	1	5	2	20120218	26.499N	69.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	1	1	6	2	20120218	26.499N	69.667W	3155	3200	2.704	34.925	2	34.924	2	267.9	2	265.9	2
WBTSRHB	AB1302	1	1	7	2	20120218	26.499N	69.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	1	1	8	2	20120218	26.499N	69.667W	2567	2600	3.172	34.967	2	34.967	2	-999.0	9	-999.0	9
WBTSRHB	AB1302	1	1	9	2	20120218	26.499N	69.667W	1976	1999	3.685	34.983	2	34.983	2	262.4	2	260.4	2
WBTSRHB	AB1302	1	1	10	2	20120218	26.499N	69.667W	1682	1700	4.098	35.001	2	35.000	2	259.3	2	253.1	4
WBTSRHB	AB1302	1	1	11	2	20120218	26.499N	69.667W	1386	1400	4.954	35.063	2	35.063	2	238.8	2	237.2	2
WBTSRHB	AB1302	1	1	12	2	20120218	26.499N	69.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	1	1	13	2	20120218	26.499N	69.667W	1090	1100	6.353	35.071	2	35.071	2	188.7	2	189.2	2
WBTSRHB	AB1302	1	1	14	2	20120218	26.499N	69.667W	921	929	7.869	35.109	2	35.107	2	152.5	2	152.1	2
WBTSRHB	AB1302	1	1	15	2	20120218	26.499N	69.667W	-999	-999	-999.000	-999.000	9	-999.000	9	197.1	2	196.9	2
WBTSRHB	AB1302	1	1	16	2	20120218	26.499N	69.667W	725	732	11.051	35.424	2	35.424	2	192.7	2	191.2	2
WBTSRHB	AB1302	1	1	17	2	20120218	26.499N	69.667W	-999	-999	-999.000	-999.000	9	-999.000	9	206.9	2	208.9	2
WBTSRHB	AB1302	1	1	18	2	20120218	26.499N	69.667W	465	469	16.827	36.330	2	36.324	2	212.9	2	211.8	2
WBTSRHB	AB1302	1	1	19	2	20120218	26.499N	69.667W	-999	-999	-999.000	-999.000	9	-999.000	9	211.3	2	210.6	2
WBTSRHB	AB1302	1	1	20	2	20120218	26.499N	69.667W	262	264	18.551	36.614	2	36.614	2	252.1	2	250.3	6
WBTSRHB	AB1302	1	1	21	2	20120218	26.499N	69.667W	159	160	20.317	36.780	2	36.779	2	261.9	2	260.4	2
WBTSRHB	AB1302	1	1	22	2	20120218	26.499N	69.667W	109	110	22.717	36.869	2	36.872	2	265.3	2	265.9	2
WBTSRHB	AB1302	1	1	23	2	20120218	26.499N	69.667W	54	54	23.660	36.772	2	36.772	2	268.2	2	268.2	2
WBTSRHB	AB1302	1	1	24	2	20120218	26.499N	69.667W	3	3	23.772	36.626	2	36.628	2	263.9	2	267.9	2
WBTSRHB	AB1302	2	1	1	2	20120218	26.499N	70.085W	5483	5591	2.122	34.854	2	34.855	2	211.3	2	210.6	2
WBTSRHB	AB1302	2	1	2	2	20120218	26.499N	70.085W	4778	4864	2.270	34.884	2	34.885	2	252.1	2	250.3	6
WBTSRHB	AB1302	2	1	3	2	20120218	26.499N	70.085W	4277	4349	2.299	34.892	2	34.895	2	261.9	2	260.4	2
WBTSRHB	AB1302	2	1	4	2	20120218	26.499N	70.085W	3765	3824	2.369	34.902	2	34.901	2	265.3	2	265.9	2
WBTSRHB	AB1302	2	1	5	2	20120218	26.499N	70.085W	3258	3305	2.580	34.917	2	34.918	2	268.2	2	268.2	2
WBTSRHB	AB1302	2	1	6	2	20120218	26.499N	70.085W	2755	2791	2.904	34.940	2	34.941	2	263.9	2	267.9	2
WBTSRHB	AB1302	2	1	7	2	20120218	26.499N	70.085W	2243	2270	3.464	34.984	2	34.987	2	263.9	2	263.9	2
WBTSRHB	AB1302	2	1	8	2	20120218	26.499N	70.085W	1831	1851	3.867	34.994	2	34.994	2	257.1	2	256.1	2
WBTSRHB	AB1302	2	1	9	2	20120218	26.499N	70.085W	1579	1596	4.339	35.026	2	35.026	2	259.5	2	258.0	2
WBTSRHB	AB1302	2	1	10	2	20120218	26.499N	70.085W	1327	1340	5.010	35.059	2	35.059	2	253.3	2	250.6	2
WBTSRHB	AB1302	2	1	11	2	20120218	26.499N	70.085W	1123	1133	5.989	35.074	2	35.075	2	235.9	2	235.6	2
WBTSRHB	AB1302	2	1	12	2	20120218	26.499N	70.085W	-999	-999	-999.000	-999.000	9	-999.000	9	198.3	2	199.9	2
WBTSRHB	AB1302	2	1	13	2	20120218	26.499N	70.085W	976	984	7.058	35.064	2	35.064	2	160.6	2	159.6	2
WBTSRHB	AB1302	2	1	14	2	20120218	26.499N	70.085W	872	880	8.222	35.138	2	35.138	2	150.1	2	147.4	2

WBTSRHH	AB1302	2	1	15	2	20120218	1354	26.499N	70.085W	768	775	9.763	35.278	2	35.274	2	144.7	2	141.8	2
WBTSRHH	AB1302	2	1	16	2	20120218	1354	26.499N	70.085W	669	675	11.940	35.553	2	35.549	2	151.0	2	149.8	2
WBTSRHH	AB1302	2	1	17	2	20120218	1354	26.499N	70.085W	565	569	14.624	35.948	2	35.947	2	167.1	2	165.4	2
WBTSRHH	AB1302	2	1	18	2	20120218	1354	26.499N	70.085W	402	405	17.480	36.458	2	36.454	2	192.9	2	193.5	2
WBTSRHH	AB1302	2	1	19	2	20120218	1354	26.499N	70.085W	283	285	18.276	36.578	2	36.580	2	196.1	2	196.8	2
WBTSRHH	AB1302	2	1	20	2	20120218	1354	26.499N	70.085W	228	229	18.786	36.637	2	36.634	2	190.2	2	190.9	2
WBTSRHH	AB1302	2	1	21	2	20120218	1354	26.499N	70.085W	176	177	19.652	36.725	2	36.721	2	187.7	2	187.0	2
WBTSRHH	AB1302	2	1	22	2	20120218	1354	26.499N	70.085W	129	130	21.022	36.825	2	36.823	2	197.1	2	195.5	2
WBTSRHH	AB1302	2	1	23	2	20120218	1354	26.499N	70.085W	56	56	23.586	36.774	2	36.775	2	211.0	2	211.3	2
WBTSRHH	AB1302	2	1	24	2	20120218	1354	26.499N	70.085W	3	3	23.739	36.778	2	36.779	2	212.3	2	211.2	2
WBTSRHH	AB1302	3	1	1	2	20120219	0132	26.499N	70.085W	5481	5589	2.084	34.849	2	34.849	2	251.2	2	248.9	2
WBTSRHH	AB1302	3	1	2	2	20120219	0132	26.499N	70.085W	4912	5002	2.254	34.880	2	34.880	2	260.1	2	259.7	2
WBTSRHH	AB1302	3	1	3	2	20120219	0132	26.499N	70.085W	4423	4499	2.286	34.890	2	34.889	2	263.1	2	264.5	2
WBTSRHH	AB1302	3	1	4	2	20120219	0132	26.499N	70.085W	3935	3998	2.318	34.897	2	34.897	2	266.5	2	267.0	2
WBTSRHH	AB1302	3	1	5	2	20120219	0132	26.499N	70.085W	3455	3507	2.460	34.911	2	34.910	2	265.6	2	265.7	2
WBTSRHH	AB1302	3	1	6	2	20120219	0132	26.499N	70.085W	2959	3000	2.740	34.930	2	34.929	2	263.5	2	262.8	2
WBTSRHH	AB1302	3	1	7	2	20120219	0132	26.499N	70.085W	2468	2499	3.110	34.955	2	34.954	2	260.8	2	260.7	2
WBTSRHH	AB1302	3	1	8	2	20120219	0132	26.499N	70.085W	1977	1999	3.649	34.988	2	34.984	2	258.8	2	257.9	2
WBTSRHH	AB1302	3	1	9	2	20120219	0132	26.499N	70.085W	1667	1685	4.098	35.008	2	35.008	2	255.4	2	255.1	2
WBTSRHH	AB1302	3	1	10	2	20120219	0132	26.499N	70.085W	1444	1458	4.609	35.042	2	35.041	2	245.4	2	245.2	2
WBTSRHH	AB1302	3	1	11	2	20120219	0132	26.499N	70.085W	1267	1279	5.212	35.076	2	35.076	2	228.9	2	228.9	2
WBTSRHH	AB1302	3	1	12	2	20120219	0132	26.499N	70.085W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	3	1	13	2	20120219	0132	26.499N	70.085W	1169	1181	5.637	35.073	2	35.073	2	212.8	2	212.3	2
WBTSRHH	AB1302	3	1	14	2	20120219	0132	26.499N	70.085W	925	933	7.395	35.078	2	35.078	2	159.0	2	158.2	2
WBTSRHH	AB1302	3	1	15	2	20120219	0132	26.499N	70.085W	817	824	9.035	35.196	2	35.199	2	143.6	2	142.6	2
WBTSRHH	AB1302	3	1	16	2	20120219	0132	26.499N	70.085W	709	714	11.315	35.458	2	35.456	2	144.3	2	144.1	2
WBTSRHH	AB1302	3	1	17	2	20120219	0132	26.499N	70.085W	599	604	13.828	35.820	2	35.818	2	159.0	2	156.0	2
WBTSRHH	AB1302	3	1	18	2	20120219	0132	26.499N	70.085W	491	495	16.159	36.211	2	36.210	2	178.4	2	178.0	2
WBTSRHH	AB1302	3	1	19	2	20120219	0132	26.499N	70.085W	381	384	17.568	36.474	2	36.473	2	196.7	2	195.8	2
WBTSRHH	AB1302	3	1	20	2	20120219	0132	26.499N	70.085W	272	274	18.298	36.585	2	36.585	2	198.5	2	198.4	2
WBTSRHH	AB1302	3	1	21	2	20120219	0132	26.499N	70.085W	183	184	19.469	36.706	2	36.703	2	188.8	2	188.8	2
WBTSRHH	AB1302	3	1	22	2	20120219	0132	26.499N	70.085W	114	114	22.124	36.882	2	36.876	2	202.2	2	199.9	2
WBTSRHH	AB1302	3	1	23	2	20120219	0132	26.499N	70.085W	63	64	23.355	36.777	2	36.779	2	212.3	2	211.8	2
WBTSRHH	AB1302	3	1	24	2	20120219	0132	26.499N	70.085W	3	3	23.671	36.761	2	36.760	2	211.9	2	211.5	2
WBTSRHH	AB1302	4	1	1	2	20120219	0749	26.500N	70.998W	5478	5586	2.084	34.850	2	34.850	2	250.6	2	252.2	4
WBTSRHH	AB1302	4	1	2	2	20120219	0749	26.500N	70.998W	5153	5250	2.218	34.872	2	34.872	6	257.5	2	256.9	6
WBTSRHH	AB1302	4	1	3	2	20120219	0749	26.500N	70.998W	4666	4749	2.284	34.887	2	34.887	2	262.2	2	263.5	4
WBTSRHH	AB1302	4	1	4	2	20120219	0749	26.500N	70.998W	4179	4249	2.295	34.893	2	34.892	2	264.9	2	264.9	4
WBTSRHH	AB1302	4	1	5	2	20120219	0749	26.500N	70.998W	3692	3749	2.348	34.900	2	34.900	2	268.1	2	268.4	4
WBTSRHH	AB1302	4	1	6	2	20120219	0749	26.500N	70.998W	3204	3250	2.545	34.916	2	34.915	2	267.5	2	268.5	4
WBTSRHH	AB1302	4	1	7	2	20120219	0749	26.500N	70.998W	2714	2750	2.896	34.938	2	34.938	2	263.8	2	263.8	4
WBTSRHH	AB1302	4	1	8	2	20120219	0749	26.500N	70.998W	2223	2250	3.320	34.960	2	34.959	2	262.6	2	262.6	4
WBTSRHH	AB1302	4	1	9	2	20120219	0749	26.500N	70.998W	1780	1800	3.753	34.975	2	34.974	2	262.5	2	262.0	4
WBTSRHH	AB1302	4	1	10	2	20120219	0749	26.500N	70.998W	1386	1400	4.569	35.031	2	35.031	2	248.7	2	249.6	2
WBTSRHH	AB1302	4	1	11	2	20120219	0749	26.500N	70.998W	1198	1210	5.282	35.076	2	35.075	2	226.1	2	226.5	2
WBTSRHH	AB1302	4	1	12	2	20120219	0749	26.500N	70.998W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	4	1	13	2	20120219	0749	26.500N	70.998W	1030	1039	6.211	35.085	2	35.086	2	200.0	2	201.3	2
WBTSRHH	AB1302	4	1	14	2	20120219	0749	26.500N	70.998W	912	920	7.527	35.106	2	35.106	2	164.0	2	165.3	2
WBTSRHH	AB1302	4	1	15	2	20120219	0749	26.500N	70.998W	803	809	9.411	35.250	2	35.250	2	147.4	2	146.5	2
WBTSRHH	AB1302	4	1	16	2	20120219	0749	26.500N	70.998W	694	699	11.881	35.548	2	35.549	2	151.2	2	152.9	2
WBTSRHH	AB1302	4	1	17	2	20120219	0749	26.500N	70.998W	585	589	14.468	35.924	2	35.921	2	168.2	2	167.3	2
WBTSRHH	AB1302	4	1	18	2	20120219	0749	26.500N	70.998W	476	480	16.614	36.298	2	36.298	2	184.8	2	187.4	2
WBTSRHH	AB1302	4	1	19	2	20120219	0749	26.500N	70.998W	367	369	17.697	36.495	2	36.495	2	195.6	2	197.0	2
WBTSRHH	AB1302	4	1	20	2	20120219	0749	26.500N	70.998W	258	260	18.457	36.604	2	36.604	2	196.5	2	197.6	2
WBTSRHH	AB1302	4	1	21	2	20120219	0749	26.500N	70.998W	168	169	19.978	36.754	2	36.751	2	190.9	2	190.7	2
WBTSRHH	AB1302	4	1	22	2	20120219	0749	26.500N	70.998W	100	100	22.728	36.757	2	36.757	2	212.8	2	211.9	2
WBTSRHH	AB1302	4	1	23	2	20120219	0749	26.500N	70.998W	3	3	22.936	36.783	2	36.780	2	213.4	2	213.2	2
WBTSRHH	AB1302	4	1	24	2	20120219	0749	26.500N	70.998W	49	50	23.174	36.795	2	36.794	2	212.2	2	212.6	4
WBTSRHH	AB1302	5	1	1	2	20120219	1414	26.498N	71.501W	5416	5522	2.115	34.854	2	34.856	2	251.0	2	250.9	2
WBTSRHH	AB1302	5	1	2	2	20120219	1414	26.498N	71.501W	4861	4950	2.252	34.880	2	34.882	2	259.8	2	260.4	2
WBTSRHH	AB1302	5	1	3	2	20120219	1414	26.498N	71.501W	4375	4450	2.289	34.891	2	34.894	2	263.6	2	265.3	2
WBTSRHH	AB1302	5	1	4	2	20120219	1414	26.498N	71.501W	3887	3949	2.331	34.898	2	34.899	2	266.5	2	267.4	2
WBTSRHH	AB1302	5	1	5	2	20120219	1414	26.498N	71.501W	3400	3450	2.467	34.910	2	34.911	2	267.9	2	268.3	2
WBTSRHH	AB1302	5	1	6	2	20120219	1414	26.498N	71.501W	2910	2949	2.734	34.928	2	34.928	2	265.9	2	267.4	2
WBTSRHH	AB1302	5	1	7	2	20120219	1414	26.498N	71.501W	2419	2449	3.150	34.953	2	34.955	2	262.0	2	262.3	2
WBTSRHH	AB1302	5	1	8	2	20120219	1414	26.498N	71.501W	1929	1950	3.634	34.972	2	3					

WBTSRHH	AB1302	5	1	9	2	20120219	1414	26.498N	71.501W	1583	1599	4.117	34.998	2	256.6	2	256.6	2	256.6	2
WBTSRHH	AB1302	5	1	10	2	20120219	1414	26.498N	71.501W	1430	1444	4.471	35.021	2	251.1	2	251.1	2	251.1	2
WBTSRHH	AB1302	5	1	11	2	20120219	1414	26.498N	71.501W	1262	1275	5.032	35.059	2	235.7	2	235.7	2	235.7	2
WBTSRHH	AB1302	5	1	12	2	20120219	1414	26.498N	71.501W	-999	-999	-999.000	-999.000	9	-999.0	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	5	1	13	2	20120219	1414	26.498N	71.501W	1094	1104	5.907	35.082	2	208.3	2	208.3	2	208.3	2
WBTSRHH	AB1302	5	1	14	2	20120219	1414	26.498N	71.501W	941	949	7.229	35.090	2	166.8	2	166.8	2	166.8	2
WBTSRHH	AB1302	5	1	15	2	20120219	1414	26.498N	71.501W	833	840	9.056	35.218	2	148.2	2	148.2	2	148.2	2
WBTSRHH	AB1302	5	1	16	2	20120219	1414	26.498N	71.501W	718	724	11.361	35.474	2	147.8	2	147.8	2	147.8	2
WBTSRHH	AB1302	5	1	17	2	20120219	1414	26.498N	71.501W	615	620	13.976	35.844	2	163.3	2	163.3	2	163.3	2
WBTSRHH	AB1302	5	1	18	2	20120219	1414	26.498N	71.501W	506	510	16.313	36.240	2	182.3	2	182.3	2	182.3	2
WBTSRHH	AB1302	5	1	19	2	20120219	1414	26.498N	71.501W	397	400	17.622	36.476	2	193.3	2	193.3	2	193.3	2
WBTSRHH	AB1302	5	1	20	2	20120219	1414	26.498N	71.501W	288	290	18.285	36.585	2	196.6	2	196.6	2	196.6	2
WBTSRHH	AB1302	5	1	21	2	20120219	1414	26.498N	71.501W	190	191	19.691	36.724	2	189.4	2	189.4	2	189.4	2
WBTSRHH	AB1302	5	1	22	2	20120219	1414	26.498N	71.501W	120	121	22.165	36.793	2	196.7	2	196.7	2	196.7	2
WBTSRHH	AB1302	5	1	23	2	20120219	1414	26.498N	71.501W	71	71	23.025	36.753	2	211.2	2	211.2	2	211.2	2
WBTSRHH	AB1302	5	1	24	2	20120219	1414	26.498N	71.501W	3	3	23.806	36.698	2	210.2	2	210.2	2	210.2	2
WBTSRHH	AB1302	6	1	1	2	20120219	2125	26.500N	71.999W	5279	5381	2.109	34.856	2	250.9	2	250.9	2	250.9	2
WBTSRHH	AB1302	6	1	2	2	20120219	2125	26.500N	71.999W	5085	5180	2.160	34.866	2	255.0	2	255.0	2	255.0	2
WBTSRHH	AB1302	6	1	3	2	20120219	2125	26.500N	71.999W	4585	4665	2.260	34.885	4	261.9	2	261.9	2	261.9	2
WBTSRHH	AB1302	6	1	4	2	20120219	2125	26.500N	71.999W	4081	4148	2.290	34.893	4	265.4	2	265.4	2	265.4	2
WBTSRHH	AB1302	6	1	5	2	20120219	2125	26.500N	71.999W	3581	3635	2.372	34.903	2	267.8	2	267.8	2	267.8	2
WBTSRHH	AB1302	6	1	6	2	20120219	2125	26.500N	71.999W	3087	3131	2.612	34.920	4	266.6	2	266.6	2	266.6	2
WBTSRHH	AB1302	6	1	7	2	20120219	2125	26.500N	71.999W	2590	2623	3.000	34.944	2	34.944	2	34.944	2	34.944	2
WBTSRHH	AB1302	6	1	8	2	20120219	2125	26.500N	71.999W	2093	2118	3.439	34.961	2	34.961	2	34.961	2	34.961	2
WBTSRHH	AB1302	6	1	9	2	20120219	2125	26.500N	71.999W	1683	1701	3.949	34.988	2	262.8	2	262.8	2	262.8	2
WBTSRHH	AB1302	6	1	10	2	20120219	2125	26.500N	71.999W	1399	1413	4.624	35.040	2	259.8	2	259.8	2	259.8	2
WBTSRHH	AB1302	6	1	11	2	20120219	2125	26.500N	71.999W	1231	1242	5.148	35.040	2	246.3	2	246.3	2	246.3	2
WBTSRHH	AB1302	6	1	12	2	20120219	2125	26.500N	71.999W	-999	-999	-999.000	-999.000	9	-999.0	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	6	1	13	2	20120219	2125	26.500N	71.999W	1054	1064	6.129	35.082	2	198.4	2	198.4	2	198.4	2
WBTSRHH	AB1302	6	1	14	2	20120219	2125	26.500N	71.999W	903	911	7.737	35.114	2	158.8	2	158.8	2	158.8	2
WBTSRHH	AB1302	6	1	15	2	20120219	2125	26.500N	71.999W	792	799	9.776	35.286	2	145.1	2	145.1	2	145.1	2
WBTSRHH	AB1302	6	1	16	2	20120219	2125	26.500N	71.999W	680	686	12.266	35.592	2	152.2	2	152.2	2	152.2	2
WBTSRHH	AB1302	6	1	17	2	20120219	2125	26.500N	71.999W	574	579	14.677	35.955	2	164.2	2	164.2	2	164.2	2
WBTSRHH	AB1302	6	1	18	2	20120219	2125	26.500N	71.999W	466	470	16.805	36.328	2	179.3	2	179.3	2	179.3	2
WBTSRHH	AB1302	6	1	19	2	20120219	2125	26.500N	71.999W	358	360	18.022	36.542	2	195.2	2	195.2	2	195.2	2
WBTSRHH	AB1302	6	1	20	2	20120219	2125	26.500N	71.999W	247	249	19.013	36.662	2	187.7	2	187.7	2	187.7	2
WBTSRHH	AB1302	6	1	21	2	20120219	2125	26.500N	71.999W	159	160	22.027	36.817	2	203.5	2	203.5	2	203.5	2
WBTSRHH	AB1302	6	1	22	2	20120219	2125	26.500N	71.999W	94	95	23.317	36.706	2	209.3	2	209.3	2	209.3	2
WBTSRHH	AB1302	6	1	23	2	20120219	2125	26.500N	71.999W	43	44	23.790	36.674	2	208.7	2	208.7	2	208.7	2
WBTSRHH	AB1302	6	1	24	2	20120219	2125	26.500N	71.999W	3	3	24.031	36.670	2	209.9	2	209.9	2	209.9	2
WBTSRHH	AB1302	7	1	1	2	20120220	0318	26.500N	72.381W	5183	5281	2.091	34.856	2	252.0	2	252.0	2	252.0	2
WBTSRHH	AB1302	7	1	2	2	20120220	0318	26.500N	72.381W	4691	4774	2.251	34.883	2	260.5	2	260.5	2	260.5	2
WBTSRHH	AB1302	7	1	3	2	20120220	0318	26.500N	72.381W	4276	4348	2.275	34.890	2	263.8	2	263.8	2	263.8	2
WBTSRHH	AB1302	7	1	4	2	20120220	0318	26.500N	72.381W	3791	3851	2.331	34.898	2	267.3	2	267.3	2	267.3	2
WBTSRHH	AB1302	7	1	5	2	20120220	0318	26.500N	72.381W	3301	3349	2.522	34.913	2	268.1	2	268.1	2	268.1	2
WBTSRHH	AB1302	7	1	6	2	20120220	0318	26.500N	72.381W	2811	2849	2.856	34.933	2	267.8	2	267.8	2	267.8	2
WBTSRHH	AB1302	7	1	7	2	20120220	0318	26.500N	72.381W	2322	2351	3.271	34.956	2	263.3	2	263.3	2	263.3	2
WBTSRHH	AB1302	7	1	8	2	20120220	0318	26.500N	72.381W	1829	1849	3.772	34.971	2	262.3	2	262.3	2	262.3	2
WBTSRHH	AB1302	7	1	9	2	20120220	0318	26.500N	72.381W	1557	1574	4.117	34.990	2	257.6	2	257.6	2	257.6	2
WBTSRHH	AB1302	7	1	10	2	20120220	0318	26.500N	72.381W	1364	1378	4.471	35.009	2	251.0	2	251.0	2	251.0	2
WBTSRHH	AB1302	7	1	11	2	20120220	0318	26.500N	72.381W	1193	1205	5.085	35.044	2	234.3	2	234.3	2	234.3	2
WBTSRHH	AB1302	7	1	12	2	20120220	0318	26.500N	72.381W	-999	-999	-999.000	-999.000	9	-999.0	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	7	1	13	2	20120220	0318	26.500N	72.381W	973	982	6.646	35.088	2	184.3	2	184.3	2	184.3	2
WBTSRHH	AB1302	7	1	14	2	20120220	0318	26.500N	72.381W	923	931	7.346	35.111	2	171.8	2	171.8	2	171.8	2
WBTSRHH	AB1302	7	1	15	2	20120220	0318	26.500N	72.381W	814	821	9.617	35.272	2	145.9	2	145.9	2	145.9	2
WBTSRHH	AB1302	7	1	16	2	20120220	0318	26.500N	72.381W	705	711	12.331	35.603	2	153.2	2	153.2	2	153.2	2
WBTSRHH	AB1302	7	1	17	2	20120220	0318	26.500N	72.381W	595	599	14.678	35.956	2	168.1	2	168.1	2	168.1	2
WBTSRHH	AB1302	7	1	18	2	20120220	0318	26.500N	72.381W	481	485	16.930	36.357	2	190.3	2	190.3	2	190.3	2
WBTSRHH	AB1302	7	1	19	2	20120220	0318	26.500N	72.381W	375	378	17.944	36.544	2	197.3	2	197.3	2	197.3	2
WBTSRHH	AB1302	7	1	20	2	20120220	0318	26.500N	72.381W	265	267	18.594	36.618	2	193.3	2	193.3	2	193.3	2
WBTSRHH	AB1302	7	1	21	2	20120220	0318	26.500N	72.381W	174	176	21.320	36.811	2	209.0	2	209.0	2	209.0	2
WBTSRHH	AB1302	7	1	22	2	20120220	0318	26.500N	72.381W	114	115	23.277	36.795	2	208.6	2	208.6	2	208.6	2
WBTSRHH	AB1302	7	1	23	2	20120220	0318	26.500N	72.381W	64	65	23.826	36.675	2	208.6	2	208.6	2	208.6	2
WBTSRHH	AB1302	7	1	24	2	20120220	0318	26.500N	72.381W	3	3	24.085	36.659	2	208.6	2	208.6	2	208.6	2
WBTSRHH	AB1302	8	1	1	2	20120220	0943	26.500N	72.766W	5127	5224	2.116	34.859	2	253.0	2	253.0	2	253.0	2
WBTSRHH	AB1302	8	1	2	2	20120220	0943	26.500N	72.766W	4618	4700	2.259	34.884	2	262.1	2	262.1	2	262.1	2



WBTSRHH	AB1302	10	1	21	2	20120220	2112	26.499N	73.500W	133	134	22.842	36.739	2	207.7	2	204.4
WBTSRHH	AB1302	10	1	22	2	20120220	2112	26.499N	73.500W	77	77	24.119	36.670	2	207.2	2	191.0
WBTSRHH	AB1302	10	1	23	2	20120220	2112	26.499N	73.500W	35	35	24.644	36.597	2	206.7	2	206.9
WBTSRHH	AB1302	10	1	24	2	20120220	2112	26.499N	73.500W	3	3	24.626	36.597	2	206.5	2	207.4
WBTSRHH	AB1302	11	1	1	2	20120221	0322	26.500N	73.863W	4733	4818	2.110	34.865	2	253.8	2	253.5
WBTSRHH	AB1302	11	1	2	2	20120221	0322	26.500N	73.863W	4327	4400	2.222	34.884	2	262.0	2	263.0
WBTSRHH	AB1302	11	1	3	2	20120221	0322	26.500N	73.863W	3840	3901	2.273	34.894	2	266.4	2	265.8
WBTSRHH	AB1302	11	1	4	2	20120221	0322	26.500N	73.863W	3450	3501	2.423	34.906	2	268.3	2	269.1
WBTSRHH	AB1302	11	1	5	2	20120221	0322	26.500N	73.863W	3054	3097	2.708	34.924	2	267.0	2	267.0
WBTSRHH	AB1302	11	1	6	2	20120221	0322	26.500N	73.863W	2666	2700	3.008	34.942	2	264.0	2	264.0
WBTSRHH	AB1302	11	1	7	2	20120221	0322	26.500N	73.863W	2272	2300	3.350	34.957	2	263.0	2	262.9
WBTSRHH	AB1302	11	1	8	2	20120221	0322	26.500N	73.863W	1928	1949	3.685	34.965	2	263.1	2	263.8
WBTSRHH	AB1302	11	1	9	2	20120221	0322	26.500N	73.863W	1568	1584	4.146	34.992	2	257.2	2	256.0
WBTSRHH	AB1302	11	1	10	2	20120221	0322	26.500N	73.863W	1387	1401	4.571	35.015	2	247.9	2	248.7
WBTSRHH	AB1302	11	1	11	2	20120221	0322	26.500N	73.863W	1218	1230	5.200	35.050	2	230.5	2	232.2
WBTSRHH	AB1302	11	1	12	2	20120221	0322	26.500N	73.863W	-999	-999	-999.000	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	11	1	13	2	20120221	0322	26.500N	73.863W	1050	1060	6.501	35.081	2	188.1	2	191.8
WBTSRHH	AB1302	11	1	14	2	20120221	0322	26.500N	73.863W	937	946	7.761	35.059	2	147.2	2	147.6
WBTSRHH	AB1302	11	1	15	2	20120221	0322	26.500N	73.863W	842	850	9.209	35.190	2	139.9	2	139.6
WBTSRHH	AB1302	11	1	16	2	20120221	0322	26.500N	73.863W	723	729	10.977	35.395	2	138.2	2	137.9
WBTSRHH	AB1302	11	1	17	2	20120221	0322	26.500N	73.863W	615	620	13.104	35.708	2	149.0	2	149.2
WBTSRHH	AB1302	11	1	18	2	20120221	0322	26.500N	73.863W	506	510	16.204	36.217	2	174.6	2	174.5
WBTSRHH	AB1302	11	1	19	2	20120221	0322	26.500N	73.863W	396	399	17.707	36.490	2	193.1	2	192.9
WBTSRHH	AB1302	11	1	20	2	20120221	0322	26.500N	73.863W	288	290	18.800	36.638	2	189.8	2	191.6
WBTSRHH	AB1302	11	1	21	2	20120221	0322	26.500N	73.863W	198	200	20.634	36.817	2	187.3	2	187.7
WBTSRHH	AB1302	11	1	22	2	20120221	0322	26.500N	73.863W	109	110	23.452	36.701	2	210.3	2	210.1
WBTSRHH	AB1302	11	1	23	2	20120221	0322	26.500N	73.863W	60	61	24.704	36.583	2	206.7	2	206.4
WBTSRHH	AB1302	11	1	24	2	20120221	0322	26.500N	73.863W	4	4	24.681	36.583	2	207.1	2	206.8
WBTSRHH	AB1302	12	1	1	2	20120221	0839	26.501N	74.233W	4532	4611	2.078	34.864	2	252.6	2	254.6
WBTSRHH	AB1302	12	1	2	2	20120221	0839	26.501N	74.233W	4034	4100	2.227	34.889	2	263.5	2	265.5
WBTSRHH	AB1302	12	1	3	2	20120221	0839	26.501N	74.233W	3652	3699	2.283	34.897	2	267.1	2	268.4
WBTSRHH	AB1302	12	1	4	2	20120221	0839	26.501N	74.233W	3252	3299	2.444	34.908	2	269.0	2	270.0
WBTSRHH	AB1302	12	1	5	2	20120221	0839	26.501N	74.233W	2861	2900	2.779	34.929	2	266.0	2	266.6
WBTSRHH	AB1302	12	1	6	2	20120221	0839	26.501N	74.233W	2469	2500	3.117	34.948	2	263.6	2	264.0
WBTSRHH	AB1302	12	1	7	2	20120221	0839	26.501N	74.233W	2076	2100	3.494	34.960	2	263.6	2	263.8
WBTSRHH	AB1302	12	1	8	2	20120221	0839	26.501N	74.233W	1781	1801	3.789	34.970	2	261.9	2	262.2
WBTSRHH	AB1302	12	1	9	2	20120221	0839	26.501N	74.233W	1583	1600	4.069	34.985	2	258.2	2	258.0
WBTSRHH	AB1302	12	1	10	2	20120221	0839	26.501N	74.233W	1387	1401	4.447	35.009	2	251.0	2	250.8
WBTSRHH	AB1302	12	1	11	2	20120221	0839	26.501N	74.233W	1188	1199	5.168	35.048	2	232.1	2	232.5
WBTSRHH	AB1302	12	1	12	2	20120221	0839	26.501N	74.233W	-999	-999	-999.000	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	12	1	13	2	20120221	0839	26.501N	74.233W	1035	1045	6.225	35.078	2	198.7	2	199.3
WBTSRHH	AB1302	12	1	14	2	20120221	0839	26.501N	74.233W	927	936	7.466	35.101	2	164.4	2	164.2
WBTSRHH	AB1302	12	1	15	2	20120221	0839	26.501N	74.233W	817	824	8.660	35.129	2	141.0	2	139.7
WBTSRHH	AB1302	12	1	16	2	20120221	0839	26.501N	74.233W	709	715	11.508	35.471	2	141.3	2	140.4
WBTSRHH	AB1302	12	1	17	2	20120221	0839	26.501N	74.233W	601	606	13.839	35.821	2	154.4	2	152.4
WBTSRHH	AB1302	12	1	18	2	20120221	0839	26.501N	74.233W	491	495	16.245	36.226	2	175.5	2	174.7
WBTSRHH	AB1302	12	1	19	2	20120221	0839	26.501N	74.233W	382	385	17.871	36.531	2	195.9	2	195.5
WBTSRHH	AB1302	12	1	20	2	20120221	0839	26.501N	74.233W	272	274	18.699	36.633	2	195.0	2	196.5
WBTSRHH	AB1302	12	1	21	2	20120221	0839	26.501N	74.233W	184	185	21.863	36.877	2	199.9	2	187.8
WBTSRHH	AB1302	12	1	22	2	20120221	0839	26.501N	74.233W	119	120	23.118	36.713	2	208.5	2	208.0
WBTSRHH	AB1302	12	1	23	2	20120221	0839	26.501N	74.233W	70	70	23.803	36.732	2	208.3	2	206.3
WBTSRHH	AB1302	12	1	24	2	20120221	0839	26.501N	74.233W	3	3	24.690	36.568	2	206.6	2	206.4
WBTSRHH	AB1302	13	1	1	2	20120221	1325	26.500N	74.518W	4483	4561	2.065	34.865	2	254.4	2	252.7
WBTSRHH	AB1302	13	1	2	2	20120221	1325	26.500N	74.518W	4229	4300	2.192	34.882	2	260.8	2	261.5
WBTSRHH	AB1302	13	1	3	2	20120221	1325	26.500N	74.518W	3790	3850	2.229	34.891	6	265.5	2	269.1
WBTSRHH	AB1302	13	1	4	2	20120221	1325	26.500N	74.518W	3352	3401	2.339	34.902	2	268.6	2	265.9
WBTSRHH	AB1302	13	1	5	2	20120221	1325	26.500N	74.518W	2959	3000	2.619	34.919	2	267.9	2	267.9
WBTSRHH	AB1302	13	1	6	2	20120221	1325	26.500N	74.518W	2566	2599	2.984	34.941	2	264.4	2	264.3
WBTSRHH	AB1302	13	1	7	2	20120221	1325	26.500N	74.518W	2174	2199	3.385	34.964	2	261.5	2	261.4
WBTSRHH	AB1302	13	1	8	2	20120221	1325	26.500N	74.518W	1830	1850	3.726	34.974	2	261.3	2	261.3
WBTSRHH	AB1302	13	1	9	2	20120221	1325	26.500N	74.518W	1534	1550	4.117	34.988	2	256.2	2	256.2
WBTSRHH	AB1302	13	1	10	2	20120221	1325	26.500N	74.518W	1304	1317	4.600	35.019	2	247.1	2	247.7
WBTSRHH	AB1302	13	1	11	2	20120221	1325	26.500N	74.518W	1173	1184	5.221	35.058	2	229.5	2	230.1
WBTSRHH	AB1302	13	1	12	2	20120221	1325	26.500N	74.518W	-999	-999	-999.000	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	13	1	13	2	20120221	1325	26.500N	74.518W	1006	1015	6.571	35.079	2	186.4	2	188.1
WBTSRHH	AB1302	13	1	14	2	20120221	1325	26.500N	74.518W	898	906	7.996	35.121	2	153.2	2	153.3

WBTSRHH	AB1302	13	1	15	2	20120221	1325	26.500N	74.518W	787	794	9.931	35.290	2	143.7	2	35.295	2	141.6	2
WBTSRHH	AB1302	13	1	16	2	20120221	1325	26.500N	74.518W	679	685	12.297	35.592	2	148.5	2	35.592	2	147.3	2
WBTSRHH	AB1302	13	1	17	2	20120221	1325	26.500N	74.518W	571	575	14.968	36.006	2	163.0	2	36.010	2	162.9	2
WBTSRHH	AB1302	13	1	18	2	20120221	1325	26.500N	74.518W	460	464	17.146	36.391	2	187.8	2	36.392	2	187.5	4
WBTSRHH	AB1302	13	1	19	2	20120221	1325	26.500N	74.518W	351	354	18.077	36.553	2	199.0	2	36.559	2	198.3	2
WBTSRHH	AB1302	13	1	20	2	20120221	1325	26.500N	74.518W	242	244	18.947	36.653	2	191.7	2	36.649	2	194.2	2
WBTSRHH	AB1302	13	1	21	2	20120221	1325	26.500N	74.518W	153	154	21.398	36.853	2	186.3	2	36.853	2	187.1	2
WBTSRHH	AB1302	13	1	22	2	20120221	1325	26.500N	74.518W	94	94	22.818	36.753	2	209.4	2	36.755	2	208.0	2
WBTSRHH	AB1302	13	1	23	2	20120221	1325	26.500N	74.518W	44	45	23.541	36.708	2	209.0	2	36.709	2	215.5	2
WBTSRHH	AB1302	13	1	24	2	20120221	1325	26.500N	74.518W	3	3	24.128	36.649	2	208.5	2	36.648	2	210.3	2
WBTSRHH	AB1302	14	1	1	2	20120221	1811	26.500N	74.801W	4525	4604	2.070	34.864	2	253.7	4	34.864	2	257.7	4
WBTSRHH	AB1302	14	1	2	2	20120221	1811	26.500N	74.801W	4131	4199	2.193	34.884	2	261.6	2	34.884	2	262.8	2
WBTSRHH	AB1302	14	1	3	2	20120221	1811	26.500N	74.801W	3616	3671	2.245	34.894	2	266.5	2	34.894	2	266.9	2
WBTSRHH	AB1302	14	1	4	2	20120221	1811	26.500N	74.801W	3252	3299	2.412	34.907	2	269.2	2	34.909	2	268.6	4
WBTSRHH	AB1302	14	1	5	2	20120221	1811	26.500N	74.801W	2762	2799	2.811	34.931	2	265.9	2	34.932	2	265.6	2
WBTSRHH	AB1302	14	1	6	2	20120221	1811	26.500N	74.801W	2372	2401	3.203	34.953	2	263.0	2	34.955	2	265.2	2
WBTSRHH	AB1302	14	1	7	2	20120221	1811	26.500N	74.801W	2124	2149	3.445	34.965	2	261.8	2	34.965	2	263.5	2
WBTSRHH	AB1302	14	1	8	2	20120221	1811	26.500N	74.801W	1880	1901	3.699	34.969	2	262.5	2	34.971	2	262.0	2
WBTSRHH	AB1302	14	1	9	2	20120221	1811	26.500N	74.801W	1629	1646	4.012	34.982	2	259.2	2	34.983	2	258.5	2
WBTSRHH	AB1302	14	1	10	2	20120221	1811	26.500N	74.801W	1603	1620	4.046	34.984	2	258.6	2	34.985	2	258.1	2
WBTSRHH	AB1302	14	1	11	2	20120221	1811	26.500N	74.801W	1211	1222	5.139	35.047	6	232.6	2	35.048	6	232.7	6
WBTSRHH	AB1302	14	1	12	2	20120221	1811	26.500N	74.801W	-999	-999	-999.000	-999.000	9	232.6	2	-999.000	9	-999.0	9
WBTSRHH	AB1302	14	1	13	2	20120221	1811	26.500N	74.801W	1045	1054	6.175	35.075	2	199.6	2	35.076	2	200.9	2
WBTSRHH	AB1302	14	1	14	2	20120221	1811	26.500N	74.801W	941	949	7.355	35.097	2	166.4	2	35.098	2	169.0	2
WBTSRHH	AB1302	14	1	15	2	20120221	1811	26.500N	74.801W	822	829	9.551	35.256	2	143.7	2	35.256	2	142.9	2
WBTSRHH	AB1302	14	1	16	2	20120221	1811	26.500N	74.801W	718	724	11.473	35.479	2	145.7	2	35.483	2	143.6	2
WBTSRHH	AB1302	14	1	17	2	20120221	1811	26.500N	74.801W	621	626	13.831	35.821	2	157.8	2	35.823	2	154.7	2
WBTSRHH	AB1302	14	1	18	2	20120221	1811	26.500N	74.801W	499	503	16.693	36.310	2	184.9	2	36.312	2	185.4	2
WBTSRHH	AB1302	14	1	19	2	20120221	1811	26.500N	74.801W	392	395	17.879	36.532	2	196.3	2	36.531	2	198.7	2
WBTSRHH	AB1302	14	1	20	2	20120221	1811	26.500N	74.801W	282	284	18.423	36.609	2	198.8	2	36.609	2	200.5	2
WBTSRHH	AB1302	14	1	21	2	20120221	1811	26.500N	74.801W	195	197	21.988	36.733	2	190.1	2	36.733	2	189.9	2
WBTSRHH	AB1302	14	1	22	2	20120221	1811	26.500N	74.801W	112	113	21.829	36.718	2	207.3	2	36.717	2	210.5	2
WBTSRHH	AB1302	14	1	23	2	20120221	1811	26.500N	74.801W	64	65	23.607	36.718	2	204.6	2	36.721	2	203.8	2
WBTSRHH	AB1302	14	1	24	2	20120221	1811	26.500N	74.801W	3	3	24.358	36.631	2	208.3	2	36.629	2	208.9	2
WBTSRHH	AB1302	15	1	1	2	20120221	2321	26.500N	75.083W	4595	4676	2.124	34.869	2	255.8	2	34.870	2	254.2	2
WBTSRHH	AB1302	15	1	2	2	20120221	2321	26.500N	75.083W	4326	4399	2.215	34.884	2	261.1	2	34.885	2	261.7	2
WBTSRHH	AB1302	15	1	3	2	20120221	2321	26.500N	75.083W	3937	4000	2.231	34.890	2	264.4	2	34.890	2	265.8	2
WBTSRHH	AB1302	15	1	4	2	20120221	2321	26.500N	75.083W	3448	3500	2.323	34.900	2	268.0	2	34.901	2	268.0	2
WBTSRHH	AB1302	15	1	5	2	20120221	2321	26.500N	75.083W	2960	3001	2.639	34.921	2	267.7	2	34.923	2	267.6	2
WBTSRHH	AB1302	15	1	6	2	20120221	2321	26.500N	75.083W	2616	2650	2.941	34.940	2	264.0	2	34.941	2	263.9	2
WBTSRHH	AB1302	15	1	7	2	20120221	2321	26.500N	75.083W	2223	2249	3.317	34.956	2	263.4	2	34.956	2	263.1	2
WBTSRHH	AB1302	15	1	8	2	20120221	2321	26.500N	75.083W	1800	1820	3.738	34.967	2	262.5	2	34.967	2	262.5	2
WBTSRHH	AB1302	15	1	9	2	20120221	2321	26.500N	75.083W	1515	1530	4.173	34.989	2	257.1	2	34.990	2	256.8	2
WBTSRHH	AB1302	15	1	10	2	20120221	2321	26.500N	75.083W	1341	1354	4.498	35.007	2	249.9	2	35.007	2	249.8	2
WBTSRHH	AB1302	15	1	11	2	20120221	2321	26.500N	75.083W	1160	1171	5.241	35.050	2	228.9	2	35.051	2	230.4	2
WBTSRHH	AB1302	15	1	12	2	20120221	2321	26.500N	75.083W	-999	-999	-999.000	-999.000	9	228.9	2	-999.000	9	-999.0	9
WBTSRHH	AB1302	15	1	13	2	20120221	2321	26.500N	75.083W	1006	1015	6.582	35.083	2	187.0	2	35.084	6	189.1	6
WBTSRHH	AB1302	15	1	14	2	20120221	2321	26.500N	75.083W	892	900	8.095	35.127	2	152.3	2	35.129	2	152.3	2
WBTSRHH	AB1302	15	1	15	2	20120221	2321	26.500N	75.083W	802	809	9.617	35.245	2	141.2	2	35.249	2	139.6	2
WBTSRHH	AB1302	15	1	16	2	20120221	2321	26.500N	75.083W	695	700	12.139	35.570	2	146.7	2	35.573	2	158.7	2
WBTSRHH	AB1302	15	1	17	2	20120221	2321	26.500N	75.083W	586	591	14.624	35.939	2	166.0	2	35.943	2	165.1	2
WBTSRHH	AB1302	15	1	18	2	20120221	2321	26.500N	75.083W	476	480	17.234	36.408	2	190.1	2	36.410	2	190.8	2
WBTSRHH	AB1302	15	1	19	2	20120221	2321	26.500N	75.083W	367	370	18.051	36.566	2	201.8	2	36.570	2	203.3	2
WBTSRHH	AB1302	15	1	20	2	20120221	2321	26.500N	75.083W	258	260	18.811	36.642	2	193.8	2	36.642	2	195.1	2
WBTSRHH	AB1302	15	1	21	2	20120221	2321	26.500N	75.083W	169	170	20.823	36.799	2	194.9	2	36.799	2	194.3	2
WBTSRHH	AB1302	15	1	22	2	20120221	2321	26.500N	75.083W	105	106	22.057	36.702	2	212.4	2	36.702	2	213.7	2
WBTSRHH	AB1302	15	1	23	2	20120221	2321	26.500N	75.083W	54	54	23.860	36.712	2	209.5	2	36.716	2	208.2	2
WBTSRHH	AB1302	15	1	24	2	20120221	2321	26.500N	75.083W	3	3	24.349	36.624	2	206.8	2	36.629	2	207.7	2
WBTSRHH	AB1302	16	1	1	2	20120222	0345	26.500N	75.300W	4627	4709	2.131	34.869	2	256.0	2	34.868	2	254.4	2
WBTSRHH	AB1302	16	1	2	2	20120222	0345	26.500N	75.300W	4156	4225	2.228	34.887	2	263.5	2	34.886	2	264.7	2
WBTSRHH	AB1302	16	1	3	2	20120222	0345	26.500N	75.300W	3741	3800	2.263	34.893	2	266.4	2	34.892	2	267.0	2
WBTSRHH	AB1302	16	1	4	2	20120222	0345	26.500N	75.300W	3301	3349	2.381	34.904	2	269.9	2	34.903	2	269.4	6
WBTSRHH	AB1302	16	1	5	2	20120222	0345	26.500N	75.300W	2813	2851	2.766	34.929	2	266.2	2	34.929	2	266.4	2
WBTSRHH	AB1302	16	1	6	2	20120222	0345	26.500N	75.300W	2465	2496	3.117	34.948	2	263.0	2	34.948	2	263.3	2
WBTSRHH	AB1302	16	1	7	2	20120222	0345	26.500N	75.300W	2074	2098	3.493	34.963	2	262.9	2	34.962	2	262.9	2
WBTSRHH	AB1302	16	1	8	2	20120222	0345	26.500												

WBTSRHH	AB1302	16	1	9	2	20120222	0345	26.500N	75.300W	1582	1598	4.073	34.988	2	34.987	2	258.2	2	258.8	2
WBTSRHH	AB1302	16	1	10	2	20120222	0345	26.500N	75.300W	1377	1391	4.459	35.010	2	35.009	2	251.3	2	250.9	2
WBTSRHH	AB1302	16	1	11	2	20120222	0345	26.500N	75.300W	1207	1219	5.056	35.045	2	35.046	2	235.9	2	236.3	2
WBTSRHH	AB1302	16	1	12	2	20120222	0345	26.500N	75.300W	-999	-999	6.137	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	16	1	13	2	20120222	0345	26.500N	75.300W	1040	1049	7.415	35.075	2	35.075	2	202.6	2	204.5	2
WBTSRHH	AB1302	16	1	14	2	20120222	0345	26.500N	75.300W	940	948	8.845	35.110	2	35.110	2	171.9	2	172.3	2
WBTSRHH	AB1302	16	1	15	2	20120222	0345	26.500N	75.300W	838	845	9.343	35.225	2	35.230	2	144.8	2	145.0	2
WBTSRHH	AB1302	16	1	16	2	20120222	0345	26.500N	75.300W	823	830	9.754	35.268	2	35.268	2	143.4	2	142.8	2
WBTSRHH	AB1302	16	1	17	2	20120222	0345	26.500N	75.300W	714	720	12.428	35.599	2	35.605	2	151.2	2	150.3	2
WBTSRHH	AB1302	16	1	18	2	20120222	0345	26.500N	75.300W	605	610	15.009	36.002	2	36.010	2	168.8	2	168.4	2
WBTSRHH	AB1302	16	1	19	2	20120222	0345	26.500N	75.300W	497	501	17.023	36.372	2	36.375	2	190.6	2	190.3	2
WBTSRHH	AB1302	16	1	20	2	20120222	0345	26.500N	75.300W	387	390	18.000	36.564	2	36.564	2	202.7	2	204.4	2
WBTSRHH	AB1302	16	1	21	2	20120222	0345	26.500N	75.300W	278	280	18.493	36.609	2	36.609	2	196.6	2	196.4	2
WBTSRHH	AB1302	16	1	22	2	20120222	0345	26.500N	75.300W	188	189	20.059	36.747	2	36.750	2	189.6	2	190.6	2
WBTSRHH	AB1302	16	1	23	2	20120222	0345	26.500N	75.300W	120	120	21.436	36.698	2	36.698	2	213.6	2	213.6	2
WBTSRHH	AB1302	16	1	24	2	20120222	0345	26.500N	75.300W	63	63	22.755	36.774	2	36.774	2	210.1	2	201.6	2
WBTSRHH	AB1302	17	1	1	2	20120222	0809	26.500N	75.501W	4676	4759	2.217	34.878	2	34.878	2	259.2	2	258.5	2
WBTSRHH	AB1302	17	1	2	2	20120222	0809	26.500N	75.501W	4424	4500	2.221	34.883	2	34.883	6	260.1	2	261.3	6
WBTSRHH	AB1302	17	1	3	2	20120222	0809	26.500N	75.501W	3985	4049	2.242	34.890	2	34.889	2	264.8	2	265.5	2
WBTSRHH	AB1302	17	1	4	2	20120222	0809	26.500N	75.501W	3496	3549	2.342	34.901	2	34.899	2	268.5	2	268.2	2
WBTSRHH	AB1302	17	1	5	2	20120222	0809	26.500N	75.501W	3057	3100	2.604	34.919	2	34.917	2	268.1	2	267.5	2
WBTSRHH	AB1302	17	1	6	2	20120222	0809	26.500N	75.501W	2664	2699	2.944	34.939	2	34.938	2	264.9	2	263.9	2
WBTSRHH	AB1302	17	1	7	2	20120222	0809	26.500N	75.501W	2321	2349	3.251	34.956	2	-999.000	9	262.4	2	261.5	2
WBTSRHH	AB1302	17	1	8	2	20120222	0809	26.500N	75.501W	1977	1999	3.593	34.966	2	34.964	2	263.2	2	262.0	2
WBTSRHH	AB1302	17	1	9	2	20120222	0809	26.500N	75.501W	1682	1700	3.910	34.977	2	34.976	2	261.3	2	259.5	2
WBTSRHH	AB1302	17	1	10	2	20120222	0809	26.500N	75.501W	1435	1450	4.318	35.000	2	34.998	2	254.4	2	254.0	2
WBTSRHH	AB1302	17	1	11	2	20120222	0809	26.500N	75.501W	1194	1205	5.015	35.035	2	35.035	2	238.3	2	239.0	2
WBTSRHH	AB1302	17	1	12	2	20120222	0809	26.500N	75.501W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	17	1	13	2	20120222	0809	26.500N	75.501W	1026	1035	6.066	35.071	2	35.071	2	206.1	2	207.9	2
WBTSRHH	AB1302	17	1	14	2	20120222	0809	26.500N	75.501W	917	925	7.427	35.115	2	35.115	2	172.4	2	173.4	2
WBTSRHH	AB1302	17	1	15	2	20120222	0809	26.500N	75.501W	807	814	9.863	35.271	2	35.272	2	143.5	2	142.9	2
WBTSRHH	AB1302	17	1	16	2	20120222	0809	26.500N	75.501W	699	705	12.926	35.671	2	35.674	2	155.5	2	154.5	2
WBTSRHH	AB1302	17	1	17	2	20120222	0809	26.500N	75.501W	590	595	15.342	36.057	2	36.059	2	170.0	2	168.0	2
WBTSRHH	AB1302	17	1	18	2	20120222	0809	26.500N	75.501W	480	484	17.266	36.417	2	36.419	2	193.4	2	191.4	2
WBTSRHH	AB1302	17	1	19	2	20120222	0809	26.500N	75.501W	372	375	18.025	36.549	2	36.547	2	199.4	2	197.0	2
WBTSRHH	AB1302	17	1	20	2	20120222	0809	26.500N	75.501W	263	265	18.672	36.630	2	36.629	2	196.3	2	196.7	2
WBTSRHH	AB1302	17	1	21	2	20120222	0809	26.500N	75.501W	174	175	20.458	36.779	2	36.779	2	192.8	2	192.9	2
WBTSRHH	AB1302	17	1	22	2	20120222	0809	26.500N	75.501W	83	83	21.610	36.706	2	36.706	2	214.4	2	215.6	2
WBTSRHH	AB1302	17	1	23	2	20120222	0809	26.500N	75.501W	35	35	22.439	36.716	2	36.708	2	211.7	2	213.0	2
WBTSRHH	AB1302	17	1	24	2	20120222	0809	26.500N	75.501W	3	3	22.614	36.660	2	36.659	2	213.9	2	211.6	2
WBTSRHH	AB1302	18	1	1	2	20120222	1305	26.500N	75.706W	4683	4766	2.232	34.880	2	34.880	2	258.6	2	259.8	6
WBTSRHH	AB1302	18	1	2	2	20120222	1305	26.500N	75.706W	4277	4349	2.251	34.888	2	34.887	2	263.6	2	264.5	2
WBTSRHH	AB1302	18	1	3	2	20120222	1305	26.500N	75.706W	3839	3900	2.271	34.894	2	34.893	2	266.4	2	266.8	2
WBTSRHH	AB1302	18	1	4	2	20120222	1305	26.500N	75.706W	3350	3399	2.406	34.906	2	34.905	2	269.0	2	268.3	2
WBTSRHH	AB1302	18	1	5	2	20120222	1305	26.500N	75.706W	2842	2880	2.766	34.926	2	34.927	2	267.5	2	267.7	2
WBTSRHH	AB1302	18	1	6	2	20120222	1305	26.500N	75.706W	2434	2465	3.145	34.945	2	34.944	2	265.0	2	264.3	2
WBTSRHH	AB1302	18	1	7	2	20120222	1305	26.500N	75.706W	2026	2050	3.537	34.963	2	34.962	2	262.9	2	263.3	2
WBTSRHH	AB1302	18	1	8	2	20120222	1305	26.500N	75.706W	1726	1744	3.912	34.982	2	34.981	2	259.6	2	266.0	4
WBTSRHH	AB1302	18	1	9	2	20120222	1305	26.500N	75.706W	1519	1535	4.193	34.996	2	34.996	2	256.0	2	253.6	2
WBTSRHH	AB1302	18	1	10	2	20120222	1305	26.500N	75.706W	1351	1364	4.548	35.019	2	35.019	2	248.9	2	249.4	2
WBTSRHH	AB1302	18	1	11	2	20120222	1305	26.500N	75.706W	1183	1194	5.042	35.036	2	35.036	2	237.7	2	238.5	2
WBTSRHH	AB1302	18	1	12	2	20120222	1305	26.500N	75.706W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	18	1	13	2	20120222	1305	26.500N	75.706W	1015	1024	6.285	35.076	2	35.077	2	199.5	2	202.1	2
WBTSRHH	AB1302	18	1	14	2	20120222	1305	26.500N	75.706W	906	914	7.781	35.125	2	35.124	2	166.4	2	164.7	2
WBTSRHH	AB1302	18	1	15	2	20120222	1305	26.500N	75.706W	798	805	10.258	35.323	2	35.326	2	142.9	2	142.7	2
WBTSRHH	AB1302	18	1	16	2	20120222	1305	26.500N	75.706W	687	693	13.423	35.757	2	35.758	2	156.5	2	154.9	2
WBTSRHH	AB1302	18	1	17	2	20120222	1305	26.500N	75.706W	580	585	15.829	36.148	2	36.149	2	174.1	2	174.0	2
WBTSRHH	AB1302	18	1	18	2	20120222	1305	26.500N	75.706W	471	474	17.483	36.460	2	36.460	2	194.5	2	182.9	4
WBTSRHH	AB1302	18	1	19	2	20120222	1305	26.500N	75.706W	362	364	18.174	36.579	2	36.579	2	200.8	2	195.6	2
WBTSRHH	AB1302	18	1	20	2	20120222	1305	26.500N	75.706W	252	254	18.824	36.642	2	36.643	2	193.8	2	195.1	2
WBTSRHH	AB1302	18	1	21	2	20120222	1305	26.500N	75.706W	163	164	21.252	36.689	2	36.689	2	210.8	2	212.5	2
WBTSRHH	AB1302	18	1	22	2	20120222	1305	26.500N	75.706W	108	109	21.550	36.703	2	36.704	2	213.0	2	215.2	2
WBTSRHH	AB1302	18	1	23	2	20120222	1305	26.500N	75.706W	59	60	22.247	36.715	2	36.716	2	213.7	2	215.2	2
WBTSRHH	AB1302	18	1	24	2	20120222	1305	26.500N	75.706W	3	3	22.904	36.644	2	36.644	6	212.7	2	223.6	2
WBTSRHH	AB1302	19	1	1	2	20120222	1726	26.503N	75.901W	4737	4822	2.257	34.882	2	34.882	2	260.1	2	257.8	2
WBTSRHH	AB1302	19	1	2	2	20120222	1726													

WBTSRHH	AB1302	19	1	3	2	20120222	1726	26.503N	75.901W	4035	4101	2.273	34.892	2	34.892	2	264.9	2	266.6	4
WBTSRHH	AB1302	19	1	4	2	20120222	1726	26.503N	75.901W	3645	3701	2.318	34.898	2	34.898	2	267.9	2	268.1	2
WBTSRHH	AB1302	19	1	5	2	20120222	1726	26.503N	75.901W	3156	3201	2.507	34.912	2	34.911	2	268.9	2	267.0	2
WBTSRHH	AB1302	19	1	6	2	20120222	1726	26.503N	75.901W	2668	2703	2.920	34.936	2	34.936	2	265.4	2	263.1	2
WBTSRHH	AB1302	19	1	7	2	20120222	1726	26.503N	75.901W	2222	2249	3.348	34.954	2	34.954	2	263.2	2	262.4	2
WBTSRHH	AB1302	19	1	8	2	20120222	1726	26.503N	75.901W	1879	1899	3.690	34.962	2	34.962	2	263.8	2	261.9	2
WBTSRHH	AB1302	19	1	9	2	20120222	1726	26.503N	75.901W	1622	1639	3.960	34.977	2	34.977	2	260.4	2	260.5	2
WBTSRHH	AB1302	19	1	10	2	20120222	1726	26.503N	75.901W	1368	1381	4.455	35.013	2	35.013	2	251.0	2	251.6	2
WBTSRHH	AB1302	19	1	11	2	20120222	1726	26.503N	75.901W	1201	1213	4.942	35.040	2	35.040	6	240.7	2	239.3	2
WBTSRHH	AB1302	19	1	12	2	20120222	1726	26.503N	75.901W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	19	1	13	2	20120222	1726	26.503N	75.901W	1030	1039	5.992	35.068	2	35.068	2	209.5	2	209.6	2
WBTSRHH	AB1302	19	1	14	2	20120222	1726	26.503N	75.901W	911	919	7.866	35.132	2	35.132	2	164.6	2	174.8	2
WBTSRHH	AB1302	19	1	15	2	20120222	1726	26.503N	75.901W	819	826	10.215	35.321	2	35.321	2	143.9	2	144.5	2
WBTSRHH	AB1302	19	1	16	2	20120222	1726	26.503N	75.901W	708	714	12.947	35.680	2	35.684	2	154.9	2	148.2	2
WBTSRHH	AB1302	19	1	17	2	20120222	1726	26.503N	75.901W	600	605	15.747	36.134	2	36.135	2	175.3	2	168.2	2
WBTSRHH	AB1302	19	1	18	2	20120222	1726	26.503N	75.901W	490	493	17.441	36.453	2	36.455	2	193.9	2	191.2	2
WBTSRHH	AB1302	19	1	19	2	20120222	1726	26.503N	75.901W	383	386	18.085	36.561	2	36.565	2	198.0	2	198.5	2
WBTSRHH	AB1302	19	1	20	2	20120222	1726	26.503N	75.901W	274	276	18.755	36.636	2	36.638	2	193.9	2	196.5	2
WBTSRHH	AB1302	19	1	21	2	20120222	1726	26.503N	75.901W	184	186	20.564	36.784	2	36.786	2	193.1	2	194.7	2
WBTSRHH	AB1302	19	1	22	2	20120222	1726	26.503N	75.901W	116	117	21.475	36.707	2	36.707	2	215.0	2	212.2	2
WBTSRHH	AB1302	19	1	23	2	20120222	1726	26.503N	75.901W	68	69	22.432	36.720	2	36.719	2	211.3	2	208.6	2
WBTSRHH	AB1302	19	1	24	2	20120222	1726	26.503N	75.901W	3	3	23.078	36.640	2	36.640	2	211.3	2	208.6	2
WBTSRHH	AB1302	20	1	1	2	20120222	2253	26.501N	76.087W	4793	4880	2.265	34.882	2	34.882	6	260.4	2	260.6	6
WBTSRHH	AB1302	20	1	2	2	20120222	2253	26.501N	76.087W	4327	4400	2.269	34.883	2	34.883	2	263.8	2	264.4	2
WBTSRHH	AB1302	20	1	3	2	20120222	2253	26.501N	76.087W	3937	4001	2.279	34.889	2	34.888	2	265.2	2	266.1	2
WBTSRHH	AB1302	20	1	4	2	20120222	2253	26.501N	76.087W	3450	3501	2.380	34.903	2	34.904	2	268.5	2	268.5	2
WBTSRHH	AB1302	20	1	5	2	20120222	2253	26.501N	76.087W	2959	3000	2.634	34.920	2	34.920	9	268.3	2	268.1	2
WBTSRHH	AB1302	20	1	6	2	20120222	2253	26.501N	76.087W	2469	2500	3.090	34.945	2	34.947	2	263.4	2	263.8	2
WBTSRHH	AB1302	20	1	7	2	20120222	2253	26.501N	76.087W	2076	2100	3.506	34.964	2	34.964	2	263.4	2	262.6	2
WBTSRHH	AB1302	20	1	8	2	20120222	2253	26.501N	76.087W	1780	1800	3.773	34.966	2	34.966	2	262.4	2	262.4	2
WBTSRHH	AB1302	20	1	9	2	20120222	2253	26.501N	76.087W	1584	1601	4.048	34.982	2	34.982	2	258.5	2	258.5	2
WBTSRHH	AB1302	20	1	10	2	20120222	2253	26.501N	76.087W	1356	1370	4.495	35.009	2	35.011	2	249.6	2	251.5	2
WBTSRHH	AB1302	20	1	11	2	20120222	2253	26.501N	76.087W	1188	1199	5.008	35.035	2	35.036	2	238.6	2	238.9	2
WBTSRHH	AB1302	20	1	12	2	20120222	2253	26.501N	76.087W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	20	1	13	2	20120222	2253	26.501N	76.087W	1021	1030	6.211	35.073	2	35.074	2	201.7	2	203.8	2
WBTSRHH	AB1302	20	1	14	2	20120222	2253	26.501N	76.087W	911	919	7.782	35.126	2	35.127	2	164.8	2	166.3	2
WBTSRHH	AB1302	20	1	15	2	20120222	2253	26.501N	76.087W	802	809	10.429	35.346	2	35.347	2	143.7	2	142.9	2
WBTSRHH	AB1302	20	1	16	2	20120222	2253	26.501N	76.087W	694	699	13.372	35.738	2	35.738	2	155.7	2	154.5	2
WBTSRHH	AB1302	20	1	17	2	20120222	2253	26.501N	76.087W	585	589	15.941	36.166	2	36.167	2	177.2	2	175.8	2
WBTSRHH	AB1302	20	1	18	2	20120222	2253	26.501N	76.087W	455	458	17.685	36.493	2	36.495	2	194.6	2	195.8	2
WBTSRHH	AB1302	20	1	19	2	20120222	2253	26.501N	76.087W	358	361	18.261	36.582	2	36.583	2	196.8	2	199.0	2
WBTSRHH	AB1302	20	1	20	2	20120222	2253	26.501N	76.087W	257	259	19.170	36.669	2	36.669	2	191.9	2	192.6	2
WBTSRHH	AB1302	20	1	21	2	20120222	2253	26.501N	76.087W	166	167	21.314	36.812	2	36.821	2	197.0	2	193.9	2
WBTSRHH	AB1302	20	1	22	2	20120222	2253	26.501N	76.087W	93	94	22.494	36.720	2	36.720	2	206.9	2	211.3	2
WBTSRHH	AB1302	20	1	23	2	20120222	2253	26.501N	76.087W	44	44	22.835	36.682	2	36.682	2	211.9	2	212.0	2
WBTSRHH	AB1302	20	1	24	2	20120222	2253	26.501N	76.087W	3	3	23.040	36.624	2	36.624	2	212.1	2	211.9	2
WBTSRHH	AB1302	21	1	1	2	20120223	0309	26.500N	76.218W	4805	4892	2.252	34.881	2	34.881	2	260.9	2	259.3	2
WBTSRHH	AB1302	21	1	2	2	20120223	0309	26.500N	76.218W	4258	4330	2.282	34.890	2	34.891	2	263.7	2	264.0	2
WBTSRHH	AB1302	21	1	3	2	20120223	0309	26.500N	76.218W	3791	3850	2.279	34.894	2	34.895	2	265.6	2	265.7	2
WBTSRHH	AB1302	21	1	4	2	20120223	0309	26.500N	76.218W	3302	3350	2.425	34.906	2	34.907	2	268.7	2	267.6	2
WBTSRHH	AB1302	21	1	5	2	20120223	0309	26.500N	76.218W	2812	2850	2.787	34.929	2	34.929	2	266.6	2	265.3	2
WBTSRHH	AB1302	21	1	6	2	20120223	0309	26.500N	76.218W	2370	2399	3.169	34.946	2	34.948	2	264.5	2	263.7	2
WBTSRHH	AB1302	21	1	7	2	20120223	0309	26.500N	76.218W	2072	2096	3.471	34.957	2	34.958	2	264.2	2	262.7	2
WBTSRHH	AB1302	21	1	8	2	20120223	0309	26.500N	76.218W	1744	1762	3.847	34.970	2	34.971	2	261.6	2	260.5	6
WBTSRHH	AB1302	21	1	9	2	20120223	0309	26.500N	76.218W	1594	1610	4.062	34.983	2	34.986	2	258.9	2	257.7	2
WBTSRHH	AB1302	21	1	10	2	20120223	0309	26.500N	76.218W	1426	1440	4.321	34.993	2	34.996	2	254.4	2	254.4	2
WBTSRHH	AB1302	21	1	11	2	20120223	0309	26.500N	76.218W	1254	1266	4.780	35.020	2	35.022	2	244.8	2	244.8	2
WBTSRHH	AB1302	21	1	12	2	20120223	0309	26.500N	76.218W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	21	1	13	2	20120223	0309	26.500N	76.218W	1090	1100	5.616	35.057	2	35.059	2	219.6	2	219.8	2
WBTSRHH	AB1302	21	1	14	2	20120223	0309	26.500N	76.218W	927	935	7.491	35.113	2	35.118	2	171.1	2	171.9	2
WBTSRHH	AB1302	21	1	15	2	20120223	0309	26.500N	76.218W	806	813	10.285	35.334	2	35.337	2	143.5	2	142.4	2
WBTSRHH	AB1302	21	1	16	2	20120223	0309	26.500N	76.218W	709	710	12.980	35.686	2	35.686	2	153.9	2	154.6	2
WBTSRHH	AB1302	21	1	17	2	20120223	0309	26.500N	76.218W	599	604	15.819	36.148	2	36.151	2	173.8	2	173.8	2
WBTSRHH	AB1302	21	1	18	2	20120223	0309	26.500N	76.218W	491	495	17.485	36.457	2	36.459	2	192.5	2	194.0	2
WBTSRHH	AB1302	21	1	19	2	20120223	0309	26.500N	76.218W	382	385	18.156	36.569	2	36.571	2	197.4	2	199.3	2
WBTSRHH	AB1302	21	1	20	2	20120223														

WBTSRHH	AB1302	21	1	21	2	20120223	0309	26.500N	76.218W	183	184	20.692	36.794	2	36.790	2	196.6	2	189.6	2
WBTSRHH	AB1302	21	1	22	2	20120223	0309	26.500N	76.218W	114	115	22.435	36.724	2	36.726	2	210.6	2	207.6	2
WBTSRHH	AB1302	21	1	23	2	20120223	0309	26.500N	76.218W	63	64	22.707	36.721	2	36.720	2	210.4	2	209.4	2
WBTSRHH	AB1302	21	1	24	2	20120223	0309	26.500N	76.218W	3	3	22.873	36.686	2	36.688	2	211.5	2	211.4	2
WBTSRHH	AB1302	22	1	1	2	20120223	0740	26.501N	76.347W	4834	4922	2.230	34.877	2	34.877	2	259.3	2	273.7	4
WBTSRHH	AB1302	22	1	2	2	20120223	0740	26.501N	76.347W	4374	4448	2.263	34.888	2	34.887	2	263.0	2	265.2	2
WBTSRHH	AB1302	22	1	3	2	20120223	0740	26.501N	76.347W	3917	3980	2.292	34.894	2	34.894	2	266.5	2	267.0	2
WBTSRHH	AB1302	22	1	4	2	20120223	0740	26.501N	76.347W	3511	3564	2.351	34.901	2	34.900	6	268.1	2	267.7	2
WBTSRHH	AB1302	22	1	5	2	20120223	0740	26.501N	76.347W	3101	3144	2.547	34.915	2	34.917	2	268.7	2	269.1	2
WBTSRHH	AB1302	22	1	6	2	20120223	0740	26.501N	76.347W	2700	2735	2.863	34.934	2	34.934	2	265.6	2	265.2	2
WBTSRHH	AB1302	22	1	7	2	20120223	0740	26.501N	76.347W	2292	2320	3.277	34.957	2	34.957	2	263.3	2	261.6	2
WBTSRHH	AB1302	22	1	8	2	20120223	0740	26.501N	76.347W	1933	1954	3.602	34.960	2	34.960	2	262.8	2	262.8	2
WBTSRHH	AB1302	22	1	9	2	20120223	0740	26.501N	76.347W	1681	1699	3.921	34.980	2	34.980	2	260.3	2	259.4	2
WBTSRHH	AB1302	22	1	10	2	20120223	0740	26.501N	76.347W	1484	1500	4.280	35.000	2	35.000	2	254.6	2	253.1	2
WBTSRHH	AB1302	22	1	11	2	20120223	0740	26.501N	76.347W	1336	1349	4.616	35.020	2	35.021	2	249.4	2	245.9	2
WBTSRHH	AB1302	22	1	12	2	20120223	0740	26.501N	76.347W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	22	1	13	2	20120223	0740	26.501N	76.347W	1163	1174	5.350	35.069	2	35.068	2	226.7	2	220.7	4
WBTSRHH	AB1302	22	1	14	2	20120223	0740	26.501N	76.347W	976	985	6.840	35.090	2	35.090	2	185.8	2	187.5	2
WBTSRHH	AB1302	22	1	15	2	20120223	0740	26.501N	76.347W	798	805	10.384	35.346	2	35.347	2	143.6	2	143.0	2
WBTSRHH	AB1302	22	1	16	2	20120223	0740	26.501N	76.347W	689	694	13.212	35.729	2	35.733	2	154.2	2	153.6	2
WBTSRHH	AB1302	22	1	17	2	20120223	0740	26.501N	76.347W	580	585	16.100	36.197	2	36.190	2	177.4	2	176.4	2
WBTSRHH	AB1302	22	1	18	2	20120223	0740	26.501N	76.347W	472	476	17.628	36.483	2	36.485	2	195.1	2	195.7	2
WBTSRHH	AB1302	22	1	19	2	20120223	0740	26.501N	76.347W	362	365	18.241	36.581	2	36.583	2	197.5	2	198.7	2
WBTSRHH	AB1302	22	1	20	2	20120223	0740	26.501N	76.347W	253	255	19.154	36.670	2	36.672	2	191.9	2	191.7	2
WBTSRHH	AB1302	22	1	21	2	20120223	0740	26.501N	76.347W	164	165	21.730	36.740	2	36.750	2	205.4	2	204.0	2
WBTSRHH	AB1302	22	1	22	2	20120223	0740	26.501N	76.347W	104	104	22.539	36.731	2	36.731	2	210.9	2	210.7	2
WBTSRHH	AB1302	22	1	23	2	20120223	0740	26.501N	76.347W	54	54	22.686	36.726	2	36.727	2	212.1	2	211.3	2
WBTSRHH	AB1302	22	1	24	2	20120223	0740	26.501N	76.347W	3	3	22.834	36.695	2	36.698	2	212.6	2	211.5	2
WBTSRHH	AB1302	23	1	1	2	20120223	1214	26.500N	76.479W	4836	4924	2.226	34.877	2	34.876	2	258.8	2	257.8	2
WBTSRHH	AB1302	23	1	2	2	20120223	1214	26.500N	76.479W	4171	4240	2.260	34.889	2	34.889	2	264.0	2	265.3	2
WBTSRHH	AB1302	23	1	3	2	20120223	1214	26.500N	76.479W	3765	3824	2.289	34.895	2	34.894	2	266.6	2	268.1	2
WBTSRHH	AB1302	23	1	4	2	20120223	1214	26.500N	76.479W	3355	3404	2.387	34.904	2	34.903	2	268.9	2	268.1	2
WBTSRHH	AB1302	23	1	5	2	20120223	1214	26.500N	76.479W	2955	2995	2.624	34.919	2	34.918	2	268.1	2	267.0	2
WBTSRHH	AB1302	23	1	6	2	20120223	1214	26.500N	76.479W	2547	2579	3.003	34.942	2	34.941	6	264.2	2	263.1	2
WBTSRHH	AB1302	23	1	7	2	20120223	1214	26.500N	76.479W	2140	2165	3.390	34.959	2	34.958	2	263.1	2	262.4	2
WBTSRHH	AB1302	23	1	8	2	20120223	1214	26.500N	76.479W	1835	1855	3.705	34.969	2	34.967	2	262.5	2	261.9	2
WBTSRHH	AB1302	23	1	9	2	20120223	1214	26.500N	76.479W	1578	1595	4.026	34.984	2	34.983	2	258.6	2	257.5	2
WBTSRHH	AB1302	23	1	10	2	20120223	1214	26.500N	76.479W	1386	1400	4.382	35.007	2	35.007	2	252.0	2	251.6	2
WBTSRHH	AB1302	23	1	11	2	20120223	1214	26.500N	76.479W	1218	1230	4.905	35.037	2	35.038	2	239.6	2	239.3	2
WBTSRHH	AB1302	23	1	12	2	20120223	1214	26.500N	76.479W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	23	1	13	2	20120223	1214	26.500N	76.479W	1055	1064	5.911	35.073	2	35.074	2	208.8	2	209.6	2
WBTSRHH	AB1302	23	1	14	2	20120223	1214	26.500N	76.479W	941	949	7.112	35.093	2	35.093	2	174.9	2	174.7	2
WBTSRHH	AB1302	23	1	15	2	20120223	1214	26.500N	76.479W	833	840	9.300	35.229	2	35.229	2	144.8	2	144.5	2
WBTSRHH	AB1302	23	1	16	2	20120223	1214	26.500N	76.479W	723	729	12.237	35.588	2	35.588	2	149.0	2	148.2	2
WBTSRHH	AB1302	23	1	17	2	20120223	1214	26.500N	76.479W	615	620	15.323	36.063	2	36.060	2	168.8	2	168.2	2
WBTSRHH	AB1302	23	1	18	2	20120223	1214	26.500N	76.479W	505	509	17.269	36.415	2	36.413	2	191.3	2	191.2	2
WBTSRHH	AB1302	23	1	19	2	20120223	1214	26.500N	76.479W	397	400	18.073	36.558	2	36.557	2	198.5	2	198.5	2
WBTSRHH	AB1302	23	1	20	2	20120223	1214	26.500N	76.479W	288	290	18.659	36.627	2	36.629	2	191.5	2	196.5	2
WBTSRHH	AB1302	23	1	21	2	20120223	1214	26.500N	76.479W	198	199	20.778	36.804	2	36.806	2	194.8	2	194.7	2
WBTSRHH	AB1302	23	1	22	2	20120223	1214	26.500N	76.479W	70	70	22.755	36.733	2	36.734	2	212.5	2	212.3	2
WBTSRHH	AB1302	23	1	23	2	20120223	1214	26.500N	76.479W	4	4	23.468	36.691	2	36.694	2	207.9	2	208.6	2
WBTSRHH	AB1302	23	1	24	2	20120223	1214	26.500N	76.479W	4	4	23.468	36.691	2	36.694	2	207.9	2	208.6	2
WBTSRHH	AB1302	24	1	1	2	20120223	1708	26.500N	76.565W	4823	4911	2.167	34.870	2	34.870	2	256.6	2	253.8	2
WBTSRHH	AB1302	24	1	2	2	20120223	1708	26.500N	76.565W	4327	4400	2.253	34.887	2	34.886	2	261.7	2	262.2	2
WBTSRHH	AB1302	24	1	3	2	20120223	1708	26.500N	76.565W	3838	3899	2.278	34.894	2	34.892	2	265.8	2	266.5	2
WBTSRHH	AB1302	24	1	4	2	20120223	1708	26.500N	76.565W	3342	3391	2.380	34.904	2	34.902	2	268.5	2	268.0	2
WBTSRHH	AB1302	24	1	5	2	20120223	1708	26.500N	76.565W	2959	2999	2.644	34.920	2	34.919	2	267.8	2	267.3	2
WBTSRHH	AB1302	24	1	6	2	20120223	1708	26.500N	76.565W	2469	2500	3.111	34.947	2	34.946	2	263.6	2	262.9	2
WBTSRHH	AB1302	24	1	7	2	20120223	1708	26.500N	76.565W	1977	1999	3.571	34.964	2	34.963	2	263.1	2	262.1	2
WBTSRHH	AB1302	24	1	8	2	20120223	1708	26.500N	76.565W	1730	1749	3.820	34.972	2	34.970	2	261.6	2	260.0	2
WBTSRHH	AB1302	24	1	9	2	20120223	1708	26.500N	76.565W	1518	1534	4.146	34.991	2	34.990	2	256.6	2	255.8	2
WBTSRHH	AB1302	24	1	10	2	20120223	1708	26.500N	76.565W	1321	1334	4.625	35.023	2	35.023	2	246.7	2	245.7	2
WBTSRHH	AB1302	24	1	11	2	20120223	1708	26.500N	76.565W	1153	1164	5.194	35.049	2	35.048	2	231.6	2	228.5	2
WBTSRHH	AB1302	24	1	12	2	20120223	1708	26.500N	76.565W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	24	1	13	2	20120223	1708	26.500N	76.565W	985	993	6.582	35.082	2	35.081	2	186.3	2	187.2	2
WBTSRHH	AB1302	24	1	14	2	20120223	1708	2												

WBTSRHH	AB1302	24	1	15	2	20120223	1708	76.565W	768	774	10.922	35.412	2	35.412	2	145.3	2	143.2	2
WBTSRHH	AB1302	24	1	16	2	20120223	1708	76.565W	660	665	13.626	35.791	2	35.789	2	158.5	2	156.8	2
WBTSRHH	AB1302	24	1	17	2	20120223	1708	76.565W	551	555	16.359	36.246	2	36.242	2	179.3	2	180.0	2
WBTSRHH	AB1302	24	1	18	2	20120223	1708	76.565W	440	443	17.833	36.521	2	36.521	2	198.2	2	198.0	6
WBTSRHH	AB1302	24	1	19	2	20120223	1708	76.565W	331	334	18.291	36.587	2	36.587	2	198.2	2	198.4	2
WBTSRHH	AB1302	24	1	20	2	20120223	1708	76.565W	222	224	19.900	36.733	2	36.734	2	188.3	2	190.7	2
WBTSRHH	AB1302	24	1	21	2	20120223	1708	76.565W	134	135	22.496	36.724	2	36.725	2	210.0	2	210.6	2
WBTSRHH	AB1302	24	1	22	2	20120223	1708	76.565W	82	83	22.746	36.718	2	36.717	2	211.2	2	212.8	2
WBTSRHH	AB1302	24	1	23	2	20120223	1708	76.565W	34	34	23.731	36.677	2	36.678	2	207.9	2	208.9	2
WBTSRHH	AB1302	24	1	24	2	20120223	1708	76.565W	2	2	24.522	36.602	2	36.602	2	207.1	2	207.0	2
WBTSRHH	AB1302	25	1	1	2	20120223	2112	76.654W	4530	4609	2.222	34.882	2	34.882	2	260.4	2	260.7	2
WBTSRHH	AB1302	25	1	2	2	20120223	2112	76.654W	3742	3800	2.272	34.894	2	34.894	2	266.4	2	268.3	2
WBTSRHH	AB1302	25	1	3	2	20120223	2112	76.654W	3253	3300	2.444	34.908	2	34.909	2	268.8	2	269.3	2
WBTSRHH	AB1302	25	1	4	2	20120223	2112	76.654W	2862	2901	2.718	34.925	2	34.925	2	266.8	2	267.3	2
WBTSRHH	AB1302	25	1	5	2	20120223	2112	76.654W	2568	2601	2.985	34.942	2	34.941	2	263.8	2	264.7	2
WBTSRHH	AB1302	25	1	6	2	20120223	2112	76.654W	2268	2296	3.309	34.957	2	34.958	2	262.9	2	262.8	2
WBTSRHH	AB1302	25	1	7	2	20120223	2112	76.654W	2073	2097	3.436	34.956	2	34.956	2	264.3	2	263.9	2
WBTSRHH	AB1302	25	1	8	2	20120223	2112	76.654W	1879	1900	3.670	34.969	2	34.970	2	263.0	2	262.9	2
WBTSRHH	AB1302	25	1	9	2	20120223	2112	76.654W	1584	1600	3.997	34.981	2	34.982	2	259.7	2	259.0	2
WBTSRHH	AB1302	25	1	10	2	20120223	2112	76.654W	1386	1400	4.320	34.999	2	35.001	2	253.0	2	253.4	2
WBTSRHH	AB1302	25	1	11	2	20120223	2112	76.654W	1208	1219	4.960	35.045	2	35.046	6	238.9	2	237.8	6
WBTSRHH	AB1302	25	1	12	2	20120223	2112	76.654W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	25	1	13	2	20120223	2112	76.654W	1030	1039	5.922	35.073	2	35.073	2	207.5	2	210.3	2
WBTSRHH	AB1302	25	1	14	2	20120223	2112	76.654W	898	906	7.575	35.115	2	35.117	2	167.0	2	167.1	2
WBTSRHH	AB1302	25	1	15	2	20120223	2112	76.654W	794	801	10.083	35.307	2	35.303	2	143.9	2	142.9	2
WBTSRHH	AB1302	25	1	16	2	20120223	2112	76.654W	682	688	13.113	35.714	2	35.711	2	153.5	2	152.5	2
WBTSRHH	AB1302	25	1	17	2	20120223	2112	76.654W	573	578	15.763	36.138	2	36.136	2	174.5	2	173.3	2
WBTSRHH	AB1302	25	1	18	2	20120223	2112	76.654W	466	469	17.551	36.471	2	36.473	2	195.9	2	195.0	2
WBTSRHH	AB1302	25	1	19	2	20120223	2112	76.654W	359	361	18.143	36.573	2	36.574	2	200.7	2	201.7	2
WBTSRHH	AB1302	25	1	20	2	20120223	2112	76.654W	248	250	19.188	36.673	2	36.687	2	191.5	2	192.0	2
WBTSRHH	AB1302	25	1	21	2	20120223	2112	76.654W	157	158	22.086	36.751	2	36.752	2	202.9	2	201.9	2
WBTSRHH	AB1302	25	1	22	2	20120223	2112	76.654W	112	113	22.679	36.727	2	36.723	2	209.6	2	211.6	2
WBTSRHH	AB1302	25	1	23	2	20120223	2112	76.654W	63	64	23.557	36.730	2	36.720	2	209.2	2	206.8	2
WBTSRHH	AB1302	25	1	24	2	20120223	2112	76.654W	3	3	24.558	36.595	2	36.623	4	208.2	2	206.6	2
WBTSRHH	AB1302	26	1	1	2	20120224	0051	76.41W	3833	3894	2.276	34.894	2	34.894	2	265.9	2	266.2	2
WBTSRHH	AB1302	26	1	2	2	20120224	0051	76.41W	3376	3426	2.410	34.905	2	34.904	2	268.8	2	268.8	2
WBTSRHH	AB1302	26	1	3	2	20120224	0051	76.41W	3008	3050	2.662	34.921	2	34.919	2	267.6	2	267.6	2
WBTSRHH	AB1302	26	1	4	2	20120224	0051	76.41W	2665	2700	2.997	34.940	2	34.941	2	264.2	2	264.9	2
WBTSRHH	AB1302	26	1	5	2	20120224	0051	76.41W	2469	2500	3.096	34.946	2	34.943	2	263.8	2	264.2	2
WBTSRHH	AB1302	26	1	6	2	20120224	0051	76.41W	2174	2200	3.321	34.951	2	34.950	2	264.7	2	264.9	2
WBTSRHH	AB1302	26	1	7	2	20120224	0051	76.41W	1878	1899	3.615	34.957	2	34.955	2	263.9	2	264.7	2
WBTSRHH	AB1302	26	1	8	2	20120224	0051	76.41W	1657	1675	3.858	34.974	2	34.972	2	260.9	2	261.3	2
WBTSRHH	AB1302	26	1	9	2	20120224	0051	76.41W	1535	1551	4.022	34.986	2	35.017	4	258.8	2	258.4	2
WBTSRHH	AB1302	26	1	10	2	20120224	0051	76.41W	1371	1385	4.351	35.008	2	35.007	2	253.0	2	253.0	2
WBTSRHH	AB1302	26	1	11	2	20120224	0051	76.41W	1238	1250	4.572	35.019	2	35.019	2	247.6	2	247.7	2
WBTSRHH	AB1302	26	1	12	2	20120224	0051	76.41W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	26	1	13	2	20120224	0051	76.41W	1089	1099	5.175	35.038	2	35.036	6	232.7	2	233.8	6
WBTSRHH	AB1302	26	1	14	2	20120224	0051	76.41W	932	940	6.791	35.085	2	35.082	2	181.1	2	182.8	2
WBTSRHH	AB1302	26	1	15	2	20120224	0051	76.41W	807	814	9.394	35.238	2	35.232	2	143.8	2	143.5	2
WBTSRHH	AB1302	26	1	16	2	20120224	0051	76.41W	698	704	12.096	35.565	2	35.567	2	147.3	2	147.3	2
WBTSRHH	AB1302	26	1	17	2	20120224	0051	76.41W	589	594	15.080	36.014	2	36.009	2	168.8	2	169.2	2
WBTSRHH	AB1302	26	1	18	2	20120224	0051	76.41W	463	466	17.447	36.452	2	36.448	2	194.4	2	196.0	2
WBTSRHH	AB1302	26	1	19	2	20120224	0051	76.41W	341	343	18.255	36.595	2	36.592	2	200.9	2	202.7	2
WBTSRHH	AB1302	26	1	20	2	20120224	0051	76.41W	263	265	18.989	36.653	2	36.652	2	191.4	2	193.8	2
WBTSRHH	AB1302	26	1	21	2	20120224	0051	76.41W	169	170	21.257	36.810	2	36.805	2	198.4	2	193.9	4
WBTSRHH	AB1302	26	1	22	2	20120224	0051	76.41W	93	94	23.396	36.873	2	36.870	2	210.6	2	210.9	4
WBTSRHH	AB1302	26	1	23	2	20120224	0051	76.41W	41	42	24.259	36.601	2	36.595	2	207.0	2	207.8	2
WBTSRHH	AB1302	26	1	24	2	20120224	0051	76.41W	3	3	24.144	36.294	4	36.293	4	208.6	2	208.8	2
WBTSRHH	AB1302	27	1	1	2	20120224	0407	76.831W	1124	1134	4.692	35.025	2	35.024	2	245.3	2	244.2	6
WBTSRHH	AB1302	27	1	2	2	20120224	0407	76.831W	1054	1064	5.026	35.040	6	35.038	6	236.6	2	236.2	2
WBTSRHH	AB1302	27	1	3	2	20120224	0407	76.831W	991	1000	5.389	35.053	2	35.053	2	225.1	2	226.8	2
WBTSRHH	AB1302	27	1	4	2	20120224	0407	76.831W	891	899	7.199	35.107	2	35.098	2	173.9	2	176.4	2
WBTSRHH	AB1302	27	1	5	2	20120224	0407	76.831W	793	800	9.648	35.267	2	35.257	2	143.6	2	144.6	2
WBTSRHH	AB1302	27	1	6	2	20120224	0407	76.831W	693	699	11.763	35.523	2	35.524	2	147.9	2	146.1	2
WBTSRHH	AB1302	27	1	7	2	20120224	0407	76.831W	593	598	14.413	35.912	2	35.910	2	161.8	2	162.1	2
WBTSRHH	AB1302	27	1	8	2	20120224	0407	76.831W	496	500	16.502	36.273	2	36.273	2	184.0	2	184.7	2



WBTSRHH	AB1302	30	1	3	2	20120226	0125	26.500N	76.089W	2958	2999	2.665	34.919	2	34.919	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	4	2	20120226	0125	26.500N	76.089W	2474	2505	3.103	34.945	2	34.943	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	5	2	20120226	0125	26.500N	76.089W	1977	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	6	2	20120226	0125	26.500N	76.089W	1977	2000	3.569	34.956	2	34.956	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	7	2	20120226	0125	26.500N	76.089W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	8	2	20120226	0125	26.500N	76.089W	1524	1540	4.152	34.989	2	34.990	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	9	2	20120226	0125	26.500N	76.089W	1393	1407	4.410	35.005	2	35.003	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	10	2	20120226	0125	26.500N	76.089W	1186	1197	5.088	35.051	2	35.051	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	11	2	20120226	0125	26.500N	76.089W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	12	2	20120226	0125	26.500N	76.089W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	13	2	20120226	0125	26.500N	76.089W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	14	2	20120226	0125	26.500N	76.089W	990	999	6.577	35.086	2	35.086	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	15	2	20120226	0125	26.500N	76.089W	841	849	9.438	35.232	2	35.232	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	16	2	20120226	0125	26.500N	76.089W	694	699	13.302	35.726	2	35.724	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	17	2	20120226	0125	26.500N	76.089W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	18	2	20120226	0125	26.500N	76.089W	537	542	16.828	36.336	2	36.338	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	19	2	20120226	0125	26.500N	76.089W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	20	2	20120226	0125	26.500N	76.089W	387	390	18.138	36.577	2	36.577	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	21	2	20120226	0125	26.500N	76.089W	247	249	19.035	36.656	2	36.656	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	22	2	20120226	0125	26.500N	76.089W	98	99	21.825	36.710	2	36.710	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	23	2	20120226	0125	26.500N	76.089W	3	3	23.156	36.640	2	36.640	2	-999.0	9	-999.0
WBTSRHH	AB1302	30	1	24	2	20120226	0125	26.500N	76.089W	3	3	23.153	36.640	2	36.639	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	1	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	2	2	20120228	0358	26.503N	76.538W	4701	4785	2.286	34.885	2	34.886	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	3	2	20120228	0358	26.503N	76.538W	4326	4399	2.298	34.890	2	34.890	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	4	2	20120228	0358	26.503N	76.538W	3838	3899	2.276	34.893	2	34.893	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	5	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	6	2	20120228	0358	26.503N	76.538W	3338	3387	2.356	34.903	2	34.903	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	7	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	8	2	20120228	0358	26.503N	76.538W	2959	3000	2.623	34.918	2	34.918	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	9	2	20120228	0358	26.503N	76.538W	2469	2500	3.064	34.943	2	34.942	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	10	2	20120228	0358	26.503N	76.538W	1978	2000	3.520	34.954	2	34.954	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	11	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	12	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	13	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	14	2	20120228	0358	26.503N	76.538W	1731	1750	3.772	34.963	2	34.963	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	15	2	20120228	0358	26.503N	76.538W	1520	1535	4.061	34.976	2	34.977	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	16	2	20120228	0358	26.503N	76.538W	1322	1335	4.298	34.984	2	34.984	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	17	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	18	2	20120228	0358	26.503N	76.538W	892	900	7.939	35.132	2	35.130	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	19	2	20120228	0358	26.503N	76.538W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	20	2	20120228	0358	26.503N	76.538W	593	598	15.205	36.036	2	36.038	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	21	2	20120228	0358	26.503N	76.538W	397	400	18.003	36.564	2	36.564	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	22	2	20120228	0358	26.503N	76.538W	199	200	20.030	36.737	2	36.738	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	23	2	20120228	0358	26.503N	76.538W	49	50	23.946	36.851	2	36.851	2	-999.0	9	-999.0
WBTSRHH	AB1302	31	1	24	2	20120228	0358	26.503N	76.538W	49	50	23.941	36.853	2	36.851	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	1	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	2	2	20120229	0237	26.500N	76.744W	3742	3801	2.298	34.895	2	34.896	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	3	2	20120229	0237	26.500N	76.744W	3350	3399	2.405	34.905	2	34.904	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	4	2	20120229	0237	26.500N	76.744W	2959	2999	2.725	34.925	2	34.923	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	5	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	6	2	20120229	0237	26.500N	76.744W	2468	2499	3.262	34.951	2	34.952	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	7	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	8	2	20120229	0237	26.500N	76.744W	1964	1987	3.539	34.959	2	34.960	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	9	2	20120229	0237	26.500N	76.744W	1484	1499	3.962	34.980	2	34.980	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	10	2	20120229	0237	26.500N	76.744W	991	1000	5.794	35.064	2	35.064	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	11	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	12	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	13	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	14	2	20120229	0237	26.500N	76.744W	888	896	7.052	35.089	2	35.091	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	15	2	20120229	0237	26.500N	76.744W	743	750	10.637	35.378	2	35.372	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	16	2	20120229	0237	26.500N	76.744W	595	600	14.854	35.984	2	35.983	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	17	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	18	2	20120229	0237	26.500N	76.744W	397	400	17.958	36.548	2	36.552	2	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	19	2	20120229	0237	26.500N	76.744W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0
WBTSRHH	AB1302	32	1	20	2	20120229	0237	26.500N	76.744W	199	200	20.128	36.750	2	36.751	2	-999.0	9	-999.0

WBTSRHH	AB1302	32	1	21	2	20120229	0237	26.500N	76.744W	99	100	22.771	36.750	2	36.747	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	32	1	22	2	20120229	0237	26.500N	76.744W	49	49	23.716	36.710	2	36.711	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	32	1	23	2	20120229	0237	26.500N	76.744W	3	3	23.919	36.701	2	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	32	1	24	2	20120229	0237	26.500N	76.744W	3	3	23.916	36.701	2	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	1	2	20120301	0102	26.499N	76.742W	-999	-999	2.402	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	2	2	20120301	0102	26.499N	76.742W	3501	3553	2.402	34.904	2	34.904	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	3	2	20120301	0102	26.499N	76.742W	2958	2999	3.222	34.925	2	34.925	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	4	2	20120301	0102	26.499N	76.742W	2457	2488	3.222	34.951	2	34.949	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	5	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	6	2	20120301	0102	26.499N	76.742W	1977	2000	3.519	34.959	2	34.958	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	7	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	8	2	20120301	0102	26.499N	76.742W	1583	1600	3.907	34.981	2	34.980	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	9	2	20120301	0102	26.499N	76.742W	1386	1400	4.254	35.003	2	35.001	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	10	2	20120301	0102	26.499N	76.742W	1199	1211	4.556	35.007	2	35.007	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	11	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	12	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	13	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	14	2	20120301	0102	26.499N	76.742W	991	1000	5.864	35.068	2	35.068	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	15	2	20120301	0102	26.499N	76.742W	833	840	8.682	35.178	2	35.178	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	16	2	20120301	0102	26.499N	76.742W	694	699	12.327	35.599	2	35.594	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	17	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	18	2	20120301	0102	26.499N	76.742W	545	549	16.087	36.193	2	36.192	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	19	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	20	2	20120301	0102	26.499N	76.742W	397	400	17.987	36.556	2	36.557	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	21	2	20120301	0102	26.499N	76.742W	248	250	19.307	36.691	2	36.691	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	22	2	20120301	0102	26.499N	76.742W	103	103	23.264	36.845	2	36.837	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	23	2	20120301	0102	26.499N	76.742W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	33	1	24	2	20120301	0102	26.499N	76.742W	2	2	24.680	36.598	2	36.598	2	-999.0	9	-999.0	9
WBTSRHH	AB1302	34	1	1	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	34	1	2	2	20120301	1516	26.434N	78.667W	751	757	9.857	35.291	6	35.299	6	144.3	2	144.0	6
WBTSRHH	AB1302	34	1	3	2	20120301	1516	26.434N	78.667W	644	650	12.235	35.588	2	35.578	2	148.7	2	147.5	2
WBTSRHH	AB1302	34	1	4	2	20120301	1516	26.434N	78.667W	545	549	14.504	35.930	2	35.929	2	163.5	2	163.1	2
WBTSRHH	AB1302	34	1	5	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	34	1	6	2	20120301	1516	26.434N	78.667W	449	452	16.953	36.353	2	36.351	2	183.1	2	184.1	2
WBTSRHH	AB1302	34	1	7	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	34	1	8	2	20120301	1516	26.434N	78.667W	347	350	18.022	36.527	2	36.526	2	187.7	2	188.1	2
WBTSRHH	AB1302	34	1	9	2	20120301	1516	26.434N	78.667W	266	268	18.935	36.648	2	36.648	2	187.3	2	189.6	2
WBTSRHH	AB1302	34	1	10	2	20120301	1516	26.434N	78.667W	208	209	20.378	36.770	2	36.770	2	192.9	2	193.2	2
WBTSRHH	AB1302	34	1	11	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	34	1	12	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	34	1	13	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	34	1	14	2	20120301	1516	26.434N	78.667W	149	150	22.079	36.802	2	36.802	2	194.6	2	194.7	2
WBTSRHH	AB1302	34	1	15	2	20120301	1516	26.434N	78.667W	99	100	23.670	36.660	2	36.667	2	203.8	2	203.7	2
WBTSRHH	AB1302	34	1	16	2	20120301	1516	26.434N	78.667W	49	50	24.371	36.352	2	36.360	2	205.4	2	206.1	2
WBTSRHH	AB1302	34	1	17	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	34	1	18	2	20120301	1516	26.434N	78.667W	3	3	24.550	36.276	2	36.276	2	207.1	2	207.5	2
WBTSRHH	AB1302	34	1	19	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	34	1	20	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	34	1	21	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	34	1	22	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	34	1	23	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	34	1	24	2	20120301	1516	26.434N	78.667W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	35	1	1	2	20120301	1722	26.336N	78.716W	694	700	10.023	35.263	6	35.263	6	133.7	6	133.7	6
WBTSRHH	AB1302	35	1	2	2	20120301	1722	26.336N	78.716W	595	600	16.254	35.704	2	35.686	2	154.5	2	152.7	2
WBTSRHH	AB1302	35	1	3	2	20120301	1722	26.336N	78.716W	496	500	16.254	36.229	2	36.219	2	177.9	2	176.4	2
WBTSRHH	AB1302	35	1	4	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	35	1	5	2	20120301	1722	26.336N	78.716W	397	400	17.539	36.466	2	36.465	2	192.6	2	193.3	2
WBTSRHH	AB1302	35	1	6	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	35	1	7	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	35	1	8	2	20120301	1722	26.336N	78.716W	228	310	18.674	36.623	2	36.624	2	192.8	2	194.3	2
WBTSRHH	AB1302	35	1	9	2	20120301	1722	26.336N	78.716W	307	230	19.947	36.738	2	36.741	2	190.7	2	190.3	2
WBTSRHH	AB1302	35	1	10	2	20120301	1722	26.336N	78.716W	178	180	21.083	36.824	2	36.823	2	199.6	2	200.9	2
WBTSRHH	AB1302	35	1	11	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	35	1	12	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9
WBTSRHH	AB1302	35	1	13	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	-999.000	9	-999.000	9	-999.0	9

WBTSRHH	AB1302	35	1	15	2	20120301	1722	26.336N	78.716W	84	85	23.816	36.556	2	2	201.1	2	201.2	2
WBTSRHH	AB1302	35	1	16	2	20120301	1722	26.336N	78.716W	40	40	24.041	36.460	2	2	202.9	2	203.1	2
WBTSRHH	AB1302	35	1	17	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	35	1	18	2	20120301	1722	26.336N	78.716W	3	3	25.290	36.120	2	2	204.7	2	205.3	2
WBTSRHH	AB1302	35	1	19	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	35	1	20	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	35	1	21	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	35	1	22	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	35	1	23	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	35	1	24	2	20120301	1722	26.336N	78.716W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	1	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	2	2	20120301	2022	26.248N	78.762W	515	519	15.891	36.164	2	2	173.7	2	174.8	6
WBTSRHH	AB1302	36	1	3	2	20120301	2022	26.248N	78.762W	398	401	17.633	36.478	2	2	191.0	2	192.4	2
WBTSRHH	AB1302	36	1	4	2	20120301	2022	26.248N	78.762W	298	300	18.562	36.610	2	2	187.2	2	188.3	2
WBTSRHH	AB1302	36	1	5	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	6	2	20120301	2022	26.248N	78.762W	208	209	19.943	36.740	2	2	186.5	2	188.1	2
WBTSRHH	AB1302	36	1	7	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	8	2	20120301	2022	26.248N	78.762W	144	145	22.390	36.781	2	2	193.2	2	193.7	2
WBTSRHH	AB1302	36	1	9	2	20120301	2022	26.248N	78.762W	94	94	23.868	36.513	2	2	200.1	2	200.9	2
WBTSRHH	AB1302	36	1	10	2	20120301	2022	26.248N	78.762W	44	44	24.940	36.212	2	2	202.4	2	203.7	2
WBTSRHH	AB1302	36	1	11	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	12	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	13	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	14	2	20120301	2022	26.248N	78.762W	3	3	26.041	35.945	2	2	202.1	2	202.9	2
WBTSRHH	AB1302	36	1	15	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	16	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	17	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	18	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	19	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	36	1	20	2	20120301	2022	26.248N	78.762W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	1	2	20120301	2139	26.166N	78.800W	447	451	16.588	36.248	2	2	159.8	2	159.9	2
WBTSRHH	AB1302	37	1	2	2	20120301	2139	26.166N	78.800W	367	370	18.130	36.551	2	2	198.3	2	196.7	2
WBTSRHH	AB1302	37	1	3	2	20120301	2139	26.166N	78.800W	258	260	18.985	36.656	2	2	181.8	2	182.1	2
WBTSRHH	AB1302	37	1	4	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	5	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	6	2	20120301	2139	26.166N	78.800W	173	174	21.333	36.816	2	2	187.8	2	188.7	2
WBTSRHH	AB1302	37	1	7	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	8	2	20120301	2139	26.166N	78.800W	124	125	23.802	36.617	2	2	199.8	2	200.4	2
WBTSRHH	AB1302	37	1	9	2	20120301	2139	26.166N	78.800W	74	75	24.973	36.220	4	4	198.4	2	196.8	2
WBTSRHH	AB1302	37	1	10	2	20120301	2139	26.166N	78.800W	30	30	25.489	36.115	2	2	198.0	2	199.0	2
WBTSRHH	AB1302	37	1	11	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	12	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	13	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	14	2	20120301	2139	26.166N	78.800W	3	3	25.907	35.988	2	2	202.5	2	202.8	6
WBTSRHH	AB1302	37	1	15	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	16	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	17	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	18	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	19	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	20	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	21	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	22	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	23	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	37	1	24	2	20120301	2139	26.166N	78.800W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	1	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	2	2	20120301	2310	26.067N	78.850W	295	297	17.927	36.490	2	2	173.5	2	174.6	2
WBTSRHH	AB1302	38	1	3	2	20120301	2310	26.067N	78.850W	236	238	19.157	36.654	2	2	175.9	2	175.9	2
WBTSRHH	AB1302	38	1	4	2	20120301	2310	26.067N	78.850W	188	189	20.799	36.784	2	2	160.4	2	160.4	2
WBTSRHH	AB1302	38	1	5	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	6	2	20120301	2310	26.067N	78.850W	138	139	23.991	36.468	2	2	198.3	2	195.4	2
WBTSRHH	AB1302	38	1	7	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	8	2	20120301	2310	26.067N	78.850W	70	71	25.065	36.192	2	2	201.3	2	200.7	2

WBTSRHH	AB1302	38	1	9	2	20120301	2310	26.067N	78.850W	49	49	25.162	36.128	2	2	203.1	2	204.3	2
WBTSRHH	AB1302	38	1	10	2	20120301	2310	26.067N	78.850W	3	3	25.195	36.088	2	2	205.0	2	204.7	6
WBTSRHH	AB1302	38	1	11	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	12	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	13	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	14	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	15	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	16	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	17	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	18	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	19	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	20	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	21	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	22	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	23	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	38	1	24	2	20120301	2310	26.067N	78.850W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	1	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	2	2	20120302	0438	26.055N	79.248W	376	376	17.559	36.453	2	2	183.4	2	185.9	2
WBTSRHH	AB1302	39	1	3	2	20120302	0438	26.055N	79.248W	311	311	17.944	36.515	2	2	185.6	2	187.0	2
WBTSRHH	AB1302	39	1	4	2	20120302	0438	26.055N	79.248W	250	251	18.973	36.659	2	2	184.7	2	185.6	2
WBTSRHH	AB1302	39	1	5	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	6	2	20120302	0438	26.055N	79.248W	188	190	19.645	36.717	2	6	179.3	2	175.4	6
WBTSRHH	AB1302	39	1	7	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	8	2	20120302	0438	26.055N	79.248W	101	101	24.941	36.487	2	2	178.2	2	181.2	2
WBTSRHH	AB1302	39	1	9	2	20120302	0438	26.055N	79.248W	60	60	25.383	36.133	2	2	201.5	2	201.8	2
WBTSRHH	AB1302	39	1	10	2	20120302	0438	26.055N	79.248W	24	24	25.504	36.064	2	2	203.3	2	204.0	2
WBTSRHH	AB1302	39	1	11	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	12	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	13	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	14	2	20120302	0438	26.055N	79.248W	2	2	25.528	36.044	2	2	203.7	2	203.9	2
WBTSRHH	AB1302	39	1	15	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	16	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	17	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	18	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	19	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	20	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	21	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	22	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	23	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	39	1	24	2	20120302	0438	26.055N	79.248W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	1	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	2	2	20120302	0601	26.047N	79.313W	481	485	14.128	35.832	6	6	142.3	2	142.7	6
WBTSRHH	AB1302	40	1	3	2	20120302	0601	26.047N	79.313W	389	392	15.322	36.026	2	2	152.6	2	144.8	2
WBTSRHH	AB1302	40	1	4	2	20120302	0601	26.047N	79.313W	336	338	17.101	36.350	2	4	164.6	2	166.0	2
WBTSRHH	AB1302	40	1	5	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	6	2	20120302	0601	26.047N	79.313W	250	252	18.450	36.540	2	2	168.0	2	163.3	2
WBTSRHH	AB1302	40	1	7	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	8	2	20120302	0601	26.047N	79.313W	217	219	19.459	36.697	2	2	171.4	2	173.4	2
WBTSRHH	AB1302	40	1	9	2	20120302	0601	26.047N	79.313W	150	151	22.839	36.883	2	2	170.4	2	170.2	2
WBTSRHH	AB1302	40	1	10	2	20120302	0601	26.047N	79.313W	89	90	25.248	36.257	2	2	193.5	2	193.7	2
WBTSRHH	AB1302	40	1	11	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	12	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	13	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	14	2	20120302	0601	26.047N	79.313W	44	45	25.613	36.053	2	2	203.0	2	204.0	2
WBTSRHH	AB1302	40	1	15	2	20120302	0601	26.047N	79.313W	3	3	25.696	36.009	2	2	202.4	2	204.0	2
WBTSRHH	AB1302	40	1	16	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	17	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	18	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	19	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	20	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	21	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	22	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	23	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	40	1	24	2	20120302	0601	26.047N	79.313W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	1	2	20120302	0742	26.048N	79.402W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	2	2	20120302	0742	26.048N	79.402W	583	588	10.809	35.303	2	2	122.9	2	122.9	2

WBTSRHH	AB1302	41	1	3	2	20120302	0742	26.048N	79.402W	477	481	12.734	35.587	2	6	130.4	2	128.8	6
WBTSRHH	AB1302	41	1	4	2	20120302	0742	26.048N	79.402W	384	387	15.165	35.991	2	9	146.4	2	145.8	2
WBTSRHH	AB1302	41	1	5	2	20120302	0742	26.048N	79.402W	300	302	17.377	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	6	2	20120302	0742	26.048N	79.402W	219	221	19.480	-999.000	9	9	161.3	2	161.6	2
WBTSRHH	AB1302	41	1	7	2	20120302	0742	26.048N	79.402W	169	170	21.092	36.668	2	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	8	2	20120302	0742	26.048N	79.402W	119	120	23.763	36.831	2	2	154.6	2	155.4	2
WBTSRHH	AB1302	41	1	9	2	20120302	0742	26.048N	79.402W	119	120	23.763	36.819	2	2	152.0	2	151.3	2
WBTSRHH	AB1302	41	1	10	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	155.5	2	153.9	2
WBTSRHH	AB1302	41	1	11	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	12	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	13	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	14	2	20120302	0742	26.048N	79.402W	79	80	25.140	36.283	2	2	197.7	2	196.0	2
WBTSRHH	AB1302	41	1	15	2	20120302	0742	26.048N	79.402W	30	30	25.140	36.044	2	2	202.0	2	202.0	2
WBTSRHH	AB1302	41	1	16	2	20120302	0742	26.048N	79.402W	3	3	25.596	35.994	2	2	202.7	2	202.9	2
WBTSRHH	AB1302	41	1	17	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	18	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	19	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	20	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	21	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	22	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	23	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	41	1	24	2	20120302	0742	26.048N	79.402W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	1	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	2	2	20120302	0923	26.038N	79.475W	662	667	9.033	35.077	2	2	122.3	2	122.3	2
WBTSRHH	AB1302	42	1	3	2	20120302	0923	26.038N	79.475W	556	560	9.627	35.144	2	2	122.7	2	120.2	2
WBTSRHH	AB1302	42	1	4	2	20120302	0923	26.038N	79.475W	487	491	12.082	35.486	2	2	124.1	2	122.3	2
WBTSRHH	AB1302	42	1	5	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	6	2	20120302	0923	26.038N	79.475W	398	401	14.083	35.809	2	6	137.6	2	137.2	6
WBTSRHH	AB1302	42	1	7	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	8	2	20120302	0923	26.038N	79.475W	326	329	16.385	36.201	2	2	153.9	2	153.4	2
WBTSRHH	AB1302	42	1	9	2	20120302	0923	26.038N	79.475W	258	260	18.131	36.500	2	2	163.8	2	162.6	2
WBTSRHH	AB1302	42	1	10	2	20120302	0923	26.038N	79.475W	203	205	19.709	36.693	2	2	155.4	2	155.6	2
WBTSRHH	AB1302	42	1	11	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	12	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	13	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	14	2	20120302	0923	26.038N	79.475W	148	149	21.614	36.869	2	2	170.5	2	166.7	2
WBTSRHH	AB1302	42	1	15	2	20120302	0923	26.038N	79.475W	89	90	25.101	36.412	2	4	185.3	2	167.6	4
WBTSRHH	AB1302	42	1	16	2	20120302	0923	26.038N	79.475W	34	35	25.614	36.031	2	2	202.9	2	201.4	2
WBTSRHH	AB1302	42	1	17	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	18	2	20120302	0923	26.038N	79.475W	3	3	25.919	35.910	2	2	200.9	2	203.0	2
WBTSRHH	AB1302	42	1	19	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	20	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	21	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	22	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	23	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	42	1	24	2	20120302	0923	26.038N	79.475W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	1	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	2	2	20120302	1112	26.045N	79.562W	754	760	7.264	34.944	2	2	133.4	2	132.3	2
WBTSRHH	AB1302	43	1	3	2	20120302	1112	26.045N	79.562W	646	651	8.463	35.020	2	2	123.9	2	122.6	2
WBTSRHH	AB1302	43	1	4	2	20120302	1112	26.045N	79.562W	548	553	9.898	35.171	2	2	121.7	2	120.7	2
WBTSRHH	AB1302	43	1	5	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	6	2	20120302	1112	26.045N	79.562W	448	452	12.035	35.480	2	2	126.1	2	123.6	2
WBTSRHH	AB1302	43	1	7	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	8	2	20120302	1112	26.045N	79.562W	348	351	14.896	35.940	2	6	142.4	2	142.4	6
WBTSRHH	AB1302	43	1	9	2	20120302	1112	26.045N	79.562W	268	270	17.202	36.345	2	2	160.3	2	159.7	2
WBTSRHH	AB1302	43	1	10	2	20120302	1112	26.045N	79.562W	208	210	18.839	36.597	2	2	159.3	2	160.8	2
WBTSRHH	AB1302	43	1	11	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	12	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	13	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	14	2	20120302	1112	26.045N	79.562W	149	150	21.261	36.838	2	2	149.6	2	149.1	2
WBTSRHH	AB1302	43	1	15	2	20120302	1112	26.045N	79.562W	99	99	24.172	36.777	2	4	167.6	2	154.0	2
WBTSRHH	AB1302	43	1	16	2	20120302	1112	26.045N	79.562W	49	50	25.995	35.887	2	4	202.5	2	200.8	2
WBTSRHH	AB1302	43	1	17	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	18	2	20120302	1112	26.045N	79.562W	3	3	26.046	35.856	2	2	202.7	2	202.8	2
WBTSRHH	AB1302	43	1	19	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	20	2	20120302	1112	26.045N	79.562W	999	999	-999.000	-999.000	9	9	-999.0	9	-999.0	9

WBTSRHH	AB1302	43	1	21	2	20120302	1112	26.045N	79.562W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	22	2	20120302	1112	26.045N	79.562W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	23	2	20120302	1112	26.045N	79.562W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	43	1	24	2	20120302	1112	26.045N	79.562W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	44	1	1	2	20120302	1310	26.046N	79.663W	694	699	6.855	2	34.915	2	136.1	2
WBTSRHH	AB1302	44	1	3	2	20120302	1310	26.046N	79.663W	586	591	8.423	2	35.001	2	123.4	2
WBTSRHH	AB1302	44	1	4	2	20120302	1310	26.046N	79.663W	486	490	9.556	2	35.129	2	121.3	2
WBTSRHH	AB1302	44	1	5	2	20120302	1310	26.046N	79.663W	407	410	11.296	2	35.362	2	121.6	2
WBTSRHH	AB1302	44	1	6	2	20120302	1310	26.046N	79.663W	333	335	13.537	2	35.716	2	134.4	2
WBTSRHH	AB1302	44	1	8	2	20120302	1310	26.046N	79.663W	262	264	16.146	2	36.163	2	152.7	2
WBTSRHH	AB1302	44	1	9	2	20120302	1310	26.046N	79.663W	188	189	18.317	2	36.493	2	149.8	2
WBTSRHH	AB1302	44	1	10	2	20120302	1310	26.046N	79.663W	99	99	19.999	2	36.489	2	150.3	2
WBTSRHH	AB1302	44	1	11	2	20120302	1310	26.046N	79.663W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	44	1	12	2	20120302	1310	26.046N	79.663W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	44	1	13	2	20120302	1310	26.046N	79.663W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	44	1	14	2	20120302	1310	26.046N	79.663W	124	125	21.630	2	36.357	2	199.8	2
WBTSRHH	AB1302	44	1	15	2	20120302	1310	26.046N	79.663W	74	75	24.706	2	36.534	2	180.2	2
WBTSRHH	AB1302	44	1	16	2	20120302	1310	26.046N	79.663W	39	40	26.026	2	35.903	2	201.9	2
WBTSRHH	AB1302	44	1	17	2	20120302	1310	26.046N	79.663W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	44	1	18	2	20120302	1310	26.046N	79.663W	3	3	26.037	2	35.898	2	202.1	2
WBTSRHH	AB1302	44	1	19	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	44	1	20	2	20120302	1504	26.051N	79.764W	592	597	6.634	2	34.911	2	139.6	2
WBTSRHH	AB1302	44	1	21	2	20120302	1504	26.051N	79.764W	469	473	8.734	2	35.049	2	123.4	2
WBTSRHH	AB1302	44	1	22	2	20120302	1504	26.051N	79.764W	387	390	10.039	2	35.198	2	119.4	2
WBTSRHH	AB1302	44	1	23	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	44	1	24	2	20120302	1504	26.051N	79.764W	327	330	11.700	2	35.428	2	124.8	2
WBTSRHH	AB1302	45	1	1	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	2	2	20120302	1504	26.051N	79.764W	258	260	14.518	2	35.880	2	141.5	2
WBTSRHH	AB1302	45	1	3	2	20120302	1504	26.051N	79.764W	218	220	16.231	2	36.163	2	144.4	2
WBTSRHH	AB1302	45	1	4	2	20120302	1504	26.051N	79.764W	148	149	19.080	2	36.605	2	149.6	2
WBTSRHH	AB1302	45	1	5	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	6	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	7	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	8	2	20120302	1504	26.051N	79.764W	91	91	22.837	2	36.470	2	204.8	2
WBTSRHH	AB1302	45	1	9	2	20120302	1504	26.051N	79.764W	44	44	25.933	2	35.915	2	201.5	2
WBTSRHH	AB1302	45	1	10	2	20120302	1504	26.051N	79.764W	3	3	25.959	2	35.916	2	202.6	2
WBTSRHH	AB1302	45	1	11	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	12	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	13	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	14	2	20120302	1504	26.051N	79.764W	91	91	22.837	2	36.470	2	204.8	2
WBTSRHH	AB1302	45	1	15	2	20120302	1504	26.051N	79.764W	44	44	25.933	2	35.915	2	201.5	2
WBTSRHH	AB1302	45	1	16	2	20120302	1504	26.051N	79.764W	3	3	25.959	2	35.916	2	202.6	2
WBTSRHH	AB1302	45	1	17	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	18	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	19	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	20	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	21	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	22	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	23	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	45	1	24	2	20120302	1504	26.051N	79.764W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	1	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	2	2	20120302	1648	26.041N	79.850W	309	311	10.516	2	35.268	2	122.6	2
WBTSRHH	AB1302	46	1	3	2	20120302	1648	26.041N	79.850W	210	212	16.754	2	36.256	2	151.8	2
WBTSRHH	AB1302	46	1	4	2	20120302	1648	26.041N	79.850W	101	111	20.923	2	36.539	2	161.4	2
WBTSRHH	AB1302	46	1	5	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	6	2	20120302	1648	26.041N	79.850W	59	60	24.851	2	36.578	2	174.5	2
WBTSRHH	AB1302	46	1	7	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	8	2	20120302	1648	26.041N	79.850W	25	25	25.975	2	35.913	2	203.0	2
WBTSRHH	AB1302	46	1	9	2	20120302	1648	26.041N	79.850W	3	3	26.071	2	35.922	2	202.1	2
WBTSRHH	AB1302	46	1	10	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	11	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	12	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	13	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	46	1	14	2	20120302	1648	26.041N	79.850W	-999	-999	-999.000	9	-999.0	9	-999.0	9





WBTSRHH	AB1302	52	1	3	2	20120303	0815	26.992N	79.782W	298	300	8.625	35.060	2	2	35.053	2	126.0	2	122.7	2
WBTSRHH	AB1302	52	1	4	2	20120303	0815	26.992N	79.782W	228	230	11.858	35.485	2	2	35.481	2	127.8	2	125.0	6
WBTSRHH	AB1302	52	1	5	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	6	2	20120303	0815	26.992N	79.782W	169	170	18.480	36.431	2	2	36.427	2	135.1	2	133.4	2
WBTSRHH	AB1302	52	1	7	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	8	2	20120303	0815	26.992N	79.782W	119	120	22.033	36.500	6	6	36.500	6	204.9	2	204.8	2
WBTSRHH	AB1302	52	1	9	2	20120303	0815	26.992N	79.782W	80	80	23.504	36.500	2	2	36.507	2	202.1	2	201.5	2
WBTSRHH	AB1302	52	1	10	2	20120303	0815	26.992N	79.782W	39	39	25.962	35.927	4	4	35.963	4	202.8	2	201.6	2
WBTSRHH	AB1302	52	1	11	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	12	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	13	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	14	2	20120303	0815	26.992N	79.782W	3	3	26.010	35.860	2	2	35.860	2	203.4	2	202.9	2
WBTSRHH	AB1302	52	1	15	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	16	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	17	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	18	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	19	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	20	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	21	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	22	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	23	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	52	1	24	2	20120303	0815	26.992N	79.782W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	1	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	2	2	20120303	1051	26.984N	79.684W	537	541	6.191	34.912	2	2	34.909	2	148.8	2	145.7	6
WBTSRHH	AB1302	53	1	3	2	20120303	1051	26.984N	79.684W	429	432	9.223	35.124	2	2	35.114	2	124.8	2	103.7	4
WBTSRHH	AB1302	53	1	4	2	20120303	1051	26.984N	79.684W	337	340	11.497	35.413	2	2	35.409	2	126.1	2	123.6	2
WBTSRHH	AB1302	53	1	5	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	6	2	20120303	1051	26.984N	79.684W	259	261	14.708	35.903	2	2	35.903	2	133.0	2	130.6	6
WBTSRHH	AB1302	53	1	7	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	8	2	20120303	1051	26.984N	79.684W	198	200	17.298	36.335	2	2	36.335	2	147.8	2	148.4	2
WBTSRHH	AB1302	53	1	9	2	20120303	1051	26.984N	79.684W	147	148	20.776	36.515	2	2	36.516	2	160.6	2	152.8	2
WBTSRHH	AB1302	53	1	10	2	20120303	1051	26.984N	79.684W	96	97	23.611	36.652	2	2	36.652	2	173.0	2	177.1	2
WBTSRHH	AB1302	53	1	11	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	12	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	13	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	14	2	20120303	1051	26.984N	79.684W	59	60	26.004	36.312	2	2	36.395	4	200.3	2	181.2	4
WBTSRHH	AB1302	53	1	15	2	20120303	1051	26.984N	79.684W	20	20	25.950	35.923	2	2	35.922	2	202.2	2	202.9	2
WBTSRHH	AB1302	53	1	16	2	20120303	1051	26.984N	79.684W	3	3	25.937	35.923	2	2	-999.000	9	202.8	2	203.2	2
WBTSRHH	AB1302	53	1	17	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	18	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	19	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	20	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	21	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	22	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	23	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	53	1	24	2	20120303	1051	26.984N	79.684W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	1	2	20120303	1306	26.988N	79.617W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	2	2	20120303	1306	26.988N	79.617W	633	638	6.338	34.911	2	2	34.908	6	145.6	2	142.7	6
WBTSRHH	AB1302	54	1	3	2	20120303	1306	26.988N	79.617W	560	564	6.781	34.923	2	2	35.080	4	138.8	2	135.9	2
WBTSRHH	AB1302	54	1	4	2	20120303	1306	26.988N	79.617W	492	495	8.743	35.075	2	2	35.082	2	126.6	2	124.0	2
WBTSRHH	AB1302	54	1	5	2	20120303	1306	26.988N	79.617W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	6	2	20120303	1306	26.988N	79.617W	416	420	10.609	35.276	2	2	35.271	2	120.0	2	117.6	2
WBTSRHH	AB1302	54	1	7	2	20120303	1306	26.988N	79.617W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	8	2	20120303	1306	26.988N	79.617W	347	350	12.567	35.561	2	2	35.562	2	128.0	2	126.0	2
WBTSRHH	AB1302	54	1	9	2	20120303	1306	26.988N	79.617W	268	269	14.966	35.957	2	2	35.958	2	141.2	2	141.2	2
WBTSRHH	AB1302	54	1	10	2	20120303	1306	26.988N	79.617W	188	190	18.215	36.474	2	2	36.483	2	149.9	2	149.8	2
WBTSRHH	AB1302	54	1	11	2	20120303	1306	26.988N	79.617W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	12	2	20120303	1306	26.988N	79.617W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	13	2	20120303	1306	26.988N	79.617W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	14	2	20120303	1306	26.988N	79.617W	139	140	21.565	36.381	2	2	36.391	2	195.8	2	191.6	2
WBTSRHH	AB1302	54	1	15	2	20120303	1306	26.988N	79.617W	74	75	25.037	36.269	2	2	36.263	4	189.1	2	189.1	2
WBTSRHH	AB1302	54	1	16	2	20120303	1306	26.988N	79.617W	34	34	26.063	35.910	2	2	35.912	2	200.9	2	201.4	2
WBTSRHH	AB1302	54	1	17	2	20120303	1306	26.988N	79.617W	-999	-999	-999.000	-999.000	9	9	-999.000	9	-999.0	9	-999.0	9
WBTSR																					

WBTSRHH	AB1302	54	1	21	2	20120303	1306	26.988N	79.617W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	22	2	20120303	1306	26.988N	79.617W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	23	2	20120303	1306	26.988N	79.617W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	54	1	24	2	20120303	1306	26.988N	79.617W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	1	2	20120303	1541	26.985N	79.501W	-999	-999	6.646	2	34.910	2	140.2	2	137.2	6
WBTSRHH	AB1302	55	1	3	2	20120303	1541	26.985N	79.501W	746	753	6.646	2	34.910	2	140.2	2	137.2	6
WBTSRHH	AB1302	55	1	4	2	20120303	1541	26.985N	79.501W	643	649	7.979	2	34.970	2	125.7	2	122.8	6
WBTSRHH	AB1302	55	1	5	2	20120303	1541	26.985N	79.501W	537	541	9.553	2	35.130	2	121.7	2	119.3	2
WBTSRHH	AB1302	55	1	6	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	7	2	20120303	1541	26.985N	79.501W	438	442	11.189	2	35.353	2	123.9	2	121.1	2
WBTSRHH	AB1302	55	1	8	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	9	2	20120303	1541	26.985N	79.501W	337	340	14.182	2	35.821	2	136.2	2	159.1	2
WBTSRHH	AB1302	55	1	10	2	20120303	1541	26.985N	79.501W	258	260	17.171	2	36.340	2	159.6	2	159.1	2
WBTSRHH	AB1302	55	1	11	2	20120303	1541	26.985N	79.501W	203	204	19.062	2	36.620	2	153.9	2	157.0	2
WBTSRHH	AB1302	55	1	12	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	13	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	14	2	20120303	1541	26.985N	79.501W	149	150	21.621	2	36.849	2	149.6	2	148.1	2
WBTSRHH	AB1302	55	1	15	2	20120303	1541	26.985N	79.501W	89	90	24.732	2	36.634	2	168.6	2	164.6	2
WBTSRHH	AB1302	55	1	16	2	20120303	1541	26.985N	79.501W	50	50	25.413	2	36.107	2	203.0	2	203.2	2
WBTSRHH	AB1302	55	1	17	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	18	2	20120303	1541	26.985N	79.501W	4	4	26.030	2	35.878	2	202.5	2	202.7	2
WBTSRHH	AB1302	55	1	19	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	20	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	21	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	22	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	23	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	55	1	24	2	20120303	1541	26.985N	79.501W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	1	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	2	2	20120303	1759	26.989N	79.382W	659	664	8.996	2	35.074	2	122.8	2	121.7	6
WBTSRHH	AB1302	56	1	3	2	20120303	1759	26.989N	79.382W	570	575	10.414	2	35.249	2	123.0	2	120.9	2
WBTSRHH	AB1302	56	1	4	2	20120303	1759	26.989N	79.382W	469	472	12.612	2	35.574	2	130.8	2	128.3	2
WBTSRHH	AB1302	56	1	5	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	6	2	20120303	1759	26.989N	79.382W	373	376	14.838	2	35.962	2	151.3	2	149.4	2
WBTSRHH	AB1302	56	1	7	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	8	2	20120303	1759	26.989N	79.382W	298	300	16.687	2	36.252	2	154.9	2	154.1	2
WBTSRHH	AB1302	56	1	9	2	20120303	1759	26.989N	79.382W	224	225	19.982	2	36.723	2	155.3	2	155.2	2
WBTSRHH	AB1302	56	1	10	2	20120303	1759	26.989N	79.382W	174	175	21.199	2	36.831	2	154.6	2	153.6	2
WBTSRHH	AB1302	56	1	11	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	12	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	13	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	14	2	20120303	1759	26.989N	79.382W	124	125	23.021	2	36.790	2	157.1	2	159.7	2
WBTSRHH	AB1302	56	1	15	2	20120303	1759	26.989N	79.382W	74	74	25.067	2	36.157	2	202.1	2	202.1	2
WBTSRHH	AB1302	56	1	16	2	20120303	1759	26.989N	79.382W	30	30	25.598	2	36.065	2	204.4	2	203.9	2
WBTSRHH	AB1302	56	1	17	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	18	2	20120303	1759	26.989N	79.382W	4	4	26.051	2	35.874	2	203.1	2	202.8	2
WBTSRHH	AB1302	56	1	19	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	20	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	21	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	22	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	23	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	56	1	24	2	20120303	1759	26.989N	79.382W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	57	1	1	2	20120303	1946	26.992N	79.287W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	57	1	2	2	20120303	1946	26.992N	79.287W	608	613	11.735	2	35.515	2	144.0	2	143.7	2
WBTSRHH	AB1302	57	1	3	2	20120303	1946	26.992N	79.287W	491	495	13.807	2	35.819	2	156.0	2	155.0	2
WBTSRHH	AB1302	57	1	4	2	20120303	1946	26.992N	79.287W	403	406	14.708	2	35.973	2	162.8	2	162.9	2
WBTSRHH	AB1302	57	1	5	2	20120303	1946	26.992N	79.287W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	57	1	6	2	20120303	1946	26.992N	79.287W	316	319	16.960	2	36.351	2	183.1	2	179.0	2
WBTSRHH	AB1302	57	1	7	2	20120303	1946	26.992N	79.287W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	57	1	8	2	20120303	1946	26.992N	79.287W	248	250	19.142	2	36.635	2	159.6	2	161.8	2
WBTSRHH	AB1302	57	1	9	2	20120303	1946	26.992N	79.287W	189	191	20.466	2	36.774	2	151.2	2	151.8	2
WBTSRHH	AB1302	57	1	10	2	20120303	1946	26.992N	79.287W	134	135	23.410	2	36.852	2	154.2	2	154.8	2
WBTSRHH	AB1302	57	1	11	2	20120303	1946	26.992N	79.287W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	57	1	12	2	20120303	1946	26.992N	79.287W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	57	1	13	2	20120303	1946	26.992N	79.287W	-999	-999	-999,000	9	-999,000	9	-999.0	9	-999.0	9
WBTSRHH	AB1302	57	1	14	2	20120303	1946	26.992N	79.287W	89	90	24.961	2	36.311	2	195.3	2	190.5	2

WBTSRHB	AB1302	57	1	15	2	20120303	1946	26.992N	79.287W	45	45	25.583	36.044	2	2	202.0	2	199.2	2
WBTSRHB	AB1302	57	1	16	2	20120303	1946	26.992N	79.287W	3	3	25.925	35.930	2	2	203.3	2	203.0	2
WBTSRHB	AB1302	57	1	17	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	57	1	18	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	57	1	19	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	57	1	20	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	57	1	21	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	57	1	22	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	57	1	23	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	57	1	24	2	20120303	1946	26.992N	79.287W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	1	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	2	2	20120303	2118	26.998N	79.201W	474	478	14.778	35.967	4	4	159.1	2	159.0	6
WBTSRHB	AB1302	58	1	3	2	20120303	2118	26.998N	79.201W	378	381	15.947	36.178	2	2	176.7	2	172.9	2
WBTSRHB	AB1302	58	1	4	2	20120303	2118	26.998N	79.201W	308	311	18.247	36.532	2	2	173.1	2	173.0	2
WBTSRHB	AB1302	58	1	5	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	6	2	20120303	2118	26.998N	79.201W	237	239	19.351	36.692	2	2	178.2	2	177.7	2
WBTSRHB	AB1302	58	1	7	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	8	2	20120303	2118	26.998N	79.201W	169	170	21.742	36.852	2	2	165.7	2	164.3	2
WBTSRHB	AB1302	58	1	9	2	20120303	2118	26.998N	79.201W	109	110	23.623	36.656	2	2	197.2	2	198.1	2
WBTSRHB	AB1302	58	1	10	2	20120303	2118	26.998N	79.201W	79	80	25.263	36.223	2	2	193.9	2	196.2	4
WBTSRHB	AB1302	58	1	11	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	12	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	13	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	14	2	20120303	2118	26.998N	79.201W	35	35	25.792	35.976	2	2	202.8	2	185.2	4
WBTSRHB	AB1302	58	1	15	2	20120303	2118	26.998N	79.201W	3	3	25.809	35.978	2	2	202.5	2	203.0	2
WBTSRHB	AB1302	58	1	16	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	17	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	18	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	19	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	20	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	21	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	22	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	23	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9
WBTSRHB	AB1302	58	1	24	2	20120303	2118	26.998N	79.201W	-999	-999	-999.000	-999.000	9	9	-999.0	9	-999.0	9

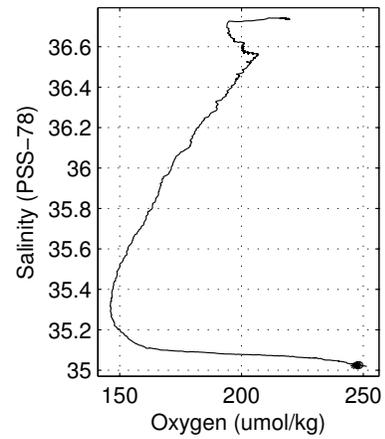
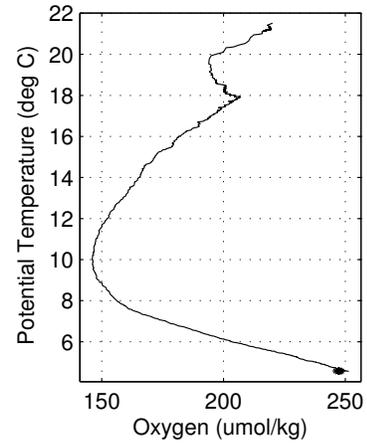
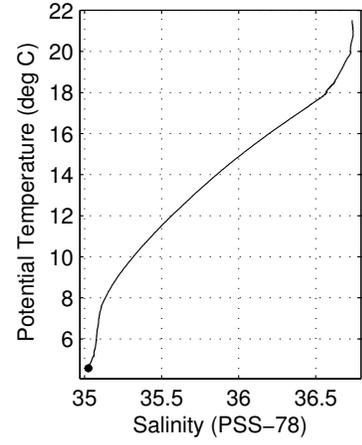
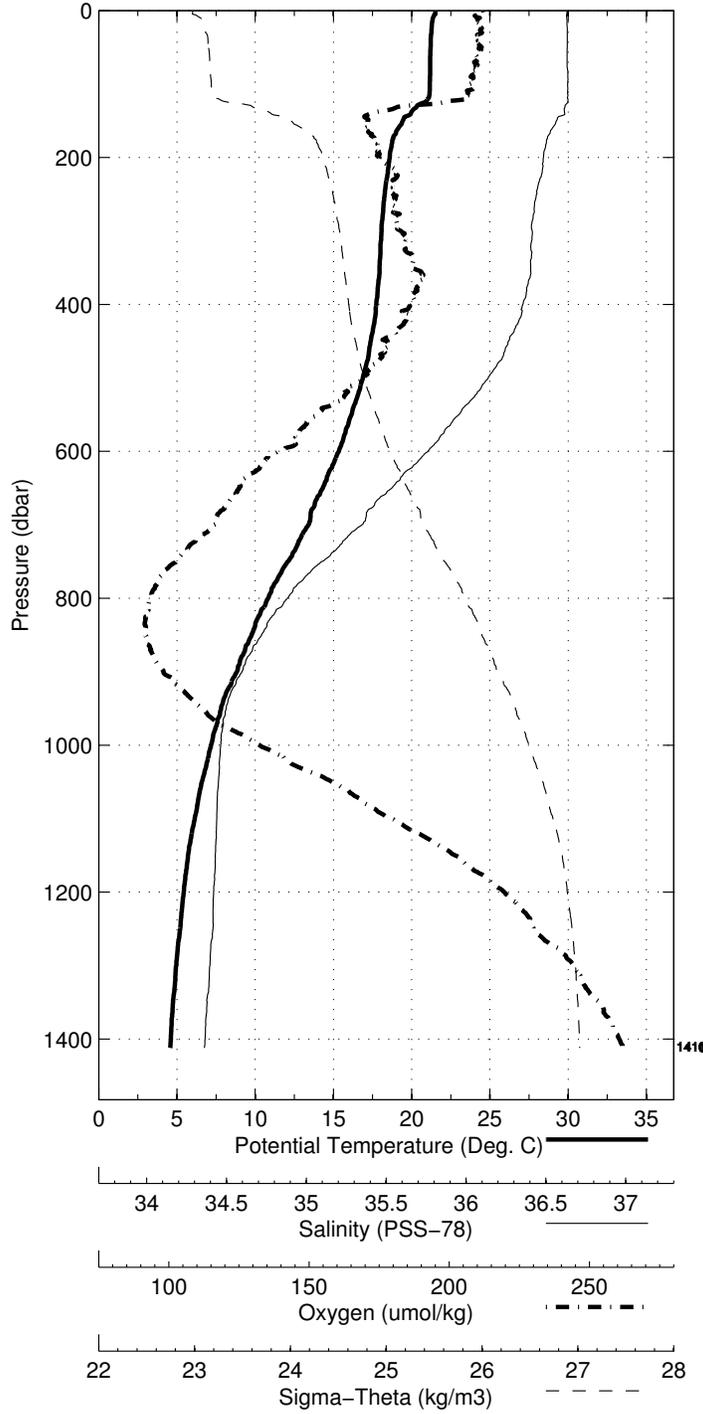
*C Hydrographic - CTD Data*

Abaco February - March 2012 R/V Brown  
 CTD Station 0 (CTD000)  
 Latitude 30.022N Longitude 75.234W  
 16-Feb-2012 20:21Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	21.511	21.511	36.738	219.9	0.002	25.676
10	21.360	21.358	36.737	219.2	0.023	25.718
20	21.287	21.284	36.738	219.0	0.046	25.740
30	21.270	21.264	36.739	219.6	0.068	25.746
50	21.219	21.210	36.739	219.6	0.113	25.760
75	21.197	21.183	36.738	218.4	0.169	25.768
100	21.179	21.160	36.741	217.0	0.225	25.776
125	20.840	20.816	36.743	211.1	0.281	25.872
150	19.461	19.434	36.688	194.8	0.331	26.199
200	18.634	18.598	36.626	197.3	0.419	26.367
250	18.319	18.275	36.594	200.2	0.505	26.424
300	18.123	18.071	36.573	202.0	0.589	26.460
400	17.804	17.735	36.528	203.6	0.756	26.509
500	16.962	16.878	36.364	193.6	0.921	26.591
600	15.441	15.347	36.080	175.1	1.077	26.727
700	13.507	13.405	35.767	161.2	1.219	26.904
800	10.926	10.825	35.413	147.3	1.343	27.129
900	8.928	8.826	35.198	150.2	1.446	27.301
1000	7.275	7.174	35.096	171.2	1.532	27.470
1100	6.240	6.136	35.079	199.9	1.603	27.597
1200	5.543	5.435	35.064	224.5	1.663	27.674
1300	5.067	4.954	35.046	239.6	1.719	27.717
1400	4.728	4.609	35.023	249.6	1.771	27.739

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
1411	1	4.696	4.577	35.022	247.3
1411	2	4.691	4.572	35.022	247.2
1411	3	4.694	4.574	35.022	-999.0
1411	4	4.697	4.577	35.023	247.4
1411	5	4.693	4.573	35.023	-999.0
1411	6	4.692	4.572	35.023	247.3
1411	7	4.692	4.573	35.022	-999.0
1411	8	4.695	4.575	35.022	246.1
1411	9	4.694	4.574	35.026	248.4
1411	10	4.691	4.572	35.024	247.5
1411	11	4.691	4.572	35.023	247.5
1411	13	4.693	4.574	35.022	247.5
1411	14	4.694	4.574	35.023	247.7
1411	15	4.694	4.574	35.024	-999.0
1411	16	4.691	4.571	35.026	247.6
1411	17	4.692	6.863	-999.000	-999.0
1411	18	4.694	6.865	-999.000	-999.0
1411	19	4.691	6.862	-999.000	-999.0
1411	20	4.690	6.861	-999.000	-999.0
1411	21	4.691	6.862	-999.000	-999.0
1411	22	4.692	6.864	-999.000	-999.0
1411	23	4.692	6.863	-999.000	-999.0
1411	24	4.690	6.862	-999.000	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 0 (CTD000)  
 Latitude 30.022 N Longitude 75.234 W  
 16-Feb-2012 20:21 Z

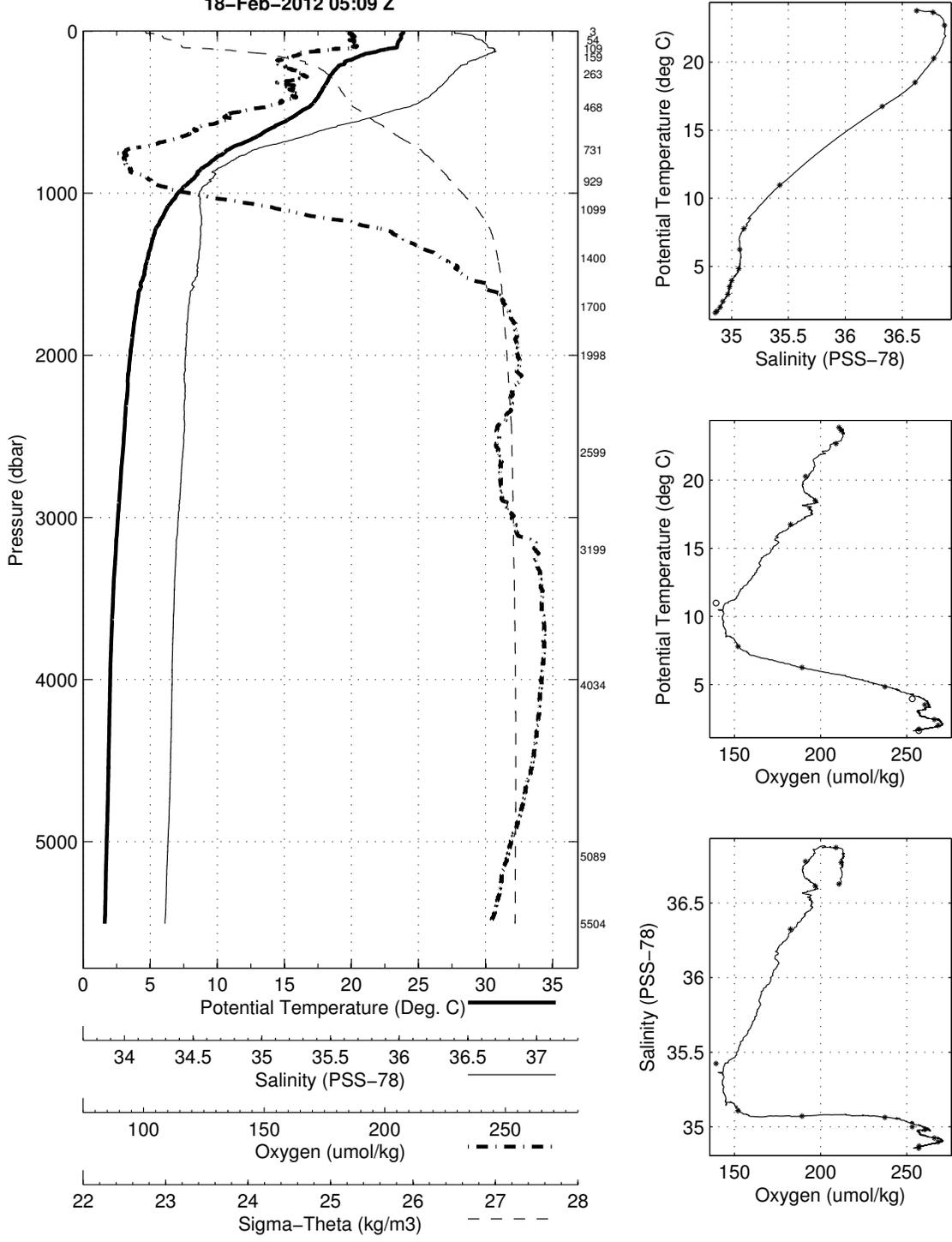


Abaco February - March 2012 R/V Brown  
 CTD Station 1 (CTD001)  
 Latitude 26.499N Longitude 69.667W  
 18-Feb-2012 05:09Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.889	23.889	36.631	210.8	0.003	24.910
10	23.864	23.861	36.632	211.3	0.030	24.919
20	23.750	23.746	36.686	212.5	0.060	24.994
30	23.733	23.726	36.743	212.1	0.090	25.043
50	23.660	23.649	36.768	213.0	0.148	25.085
75	23.476	23.461	36.817	213.0	0.219	25.177
100	23.423	23.402	36.834	213.3	0.289	25.208
125	21.959	21.934	36.883	202.4	0.353	25.668
150	20.738	20.709	36.817	195.6	0.408	25.957
200	19.528	19.491	36.707	189.7	0.507	26.199
250	18.699	18.654	36.629	195.9	0.597	26.356
300	18.323	18.270	36.586	195.5	0.684	26.420
400	17.626	17.557	36.480	194.2	0.853	26.515
500	16.250	16.169	36.225	177.4	1.014	26.651
600	14.096	14.007	35.863	164.9	1.162	26.853
700	11.690	11.598	35.517	152.3	1.290	27.068
800	9.692	9.598	35.264	143.9	1.399	27.227
900	8.422	8.324	35.154	149.8	1.495	27.346
1000	7.149	7.049	35.067	162.9	1.579	27.465
1100	6.306	6.202	35.073	190.5	1.651	27.584
1200	5.669	5.560	35.078	215.6	1.713	27.670
1300	5.242	5.127	35.073	229.6	1.769	27.719
1400	4.938	4.817	35.064	239.4	1.821	27.747
1500	4.672	4.544	35.055	245.6	1.872	27.771
1750	4.034	3.890	34.997	260.2	1.993	27.795
2000	3.676	3.514	34.983	262.7	2.109	27.822
2500	3.241	3.036	34.972	257.0	2.332	27.860
3000	2.841	2.593	34.939	260.7	2.551	27.873
3500	2.520	2.227	34.913	269.9	2.768	27.884
4000	2.358	2.014	34.901	269.9	2.985	27.891
4500	2.295	1.894	34.891	267.1	3.209	27.893
5000	2.211	1.751	34.875	260.5	3.442	27.891
5500	2.130	1.610	34.857	253.9	3.683	27.887

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5504	1	2.130	1.609	34.856	256.9
5089	2	2.194	1.724	34.871	257.1
4034	4	2.356	2.008	34.899	268.1
3200	6	2.703	2.438	34.924	265.9
2600	8	3.171	2.958	34.967	-999.0
1999	9	3.684	3.522	34.983	260.4
1700	10	4.097	3.957	35.000	253.1
1400	11	4.953	4.832	35.063	237.2
1100	13	6.352	6.248	35.071	189.2
929	14	7.867	7.770	35.107	152.1
732	16	11.059	10.966	35.424	139.3
469	18	16.826	16.748	36.324	182.5
264	20	18.547	18.500	36.614	196.9
160	21	20.312	20.282	36.779	191.2
110	22	22.717	22.694	36.872	208.9
54	23	23.659	23.648	36.772	211.8
3	24	23.770	23.769	36.628	210.6

Abaco February – March 2013 R/V Brown  
 CTD Station 1 (CTD001)  
 Latitude 26.499 N Longitude 69.667 W  
 18-Feb-2012 05:09 Z

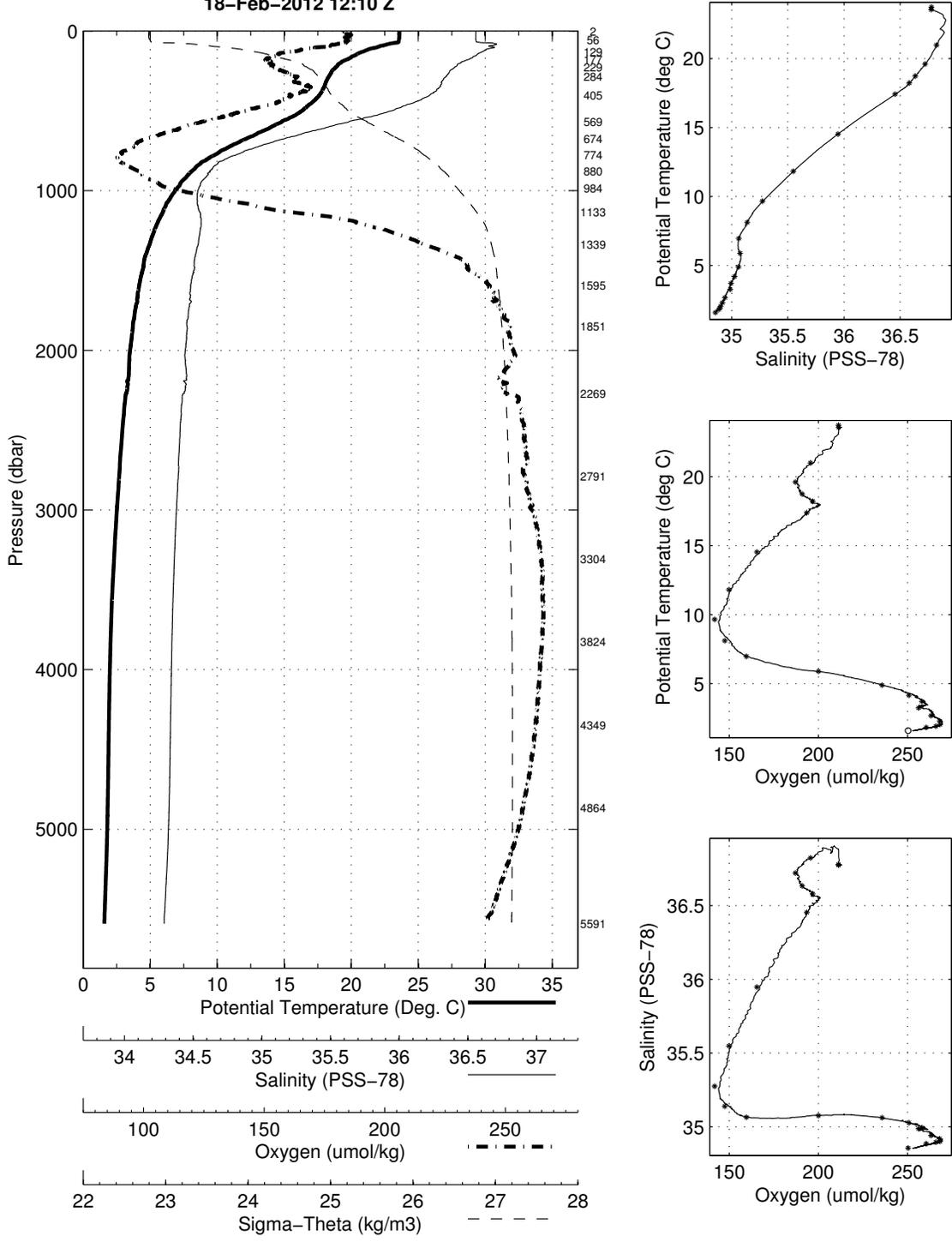


Abaco February - March 2012 R/V Brown  
 CTD Station 2 (CTD002)  
 Latitude 26.499N Longitude 70.085W  
 18-Feb-2012 12:10Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.588	23.588	36.778	210.7	0.003	25.111
10	23.588	23.586	36.776	211.2	0.028	25.110
20	23.588	23.584	36.776	212.2	0.057	25.111
30	23.593	23.587	36.777	212.6	0.086	25.110
50	23.581	23.571	36.776	211.3	0.143	25.114
75	23.174	23.159	36.881	211.0	0.214	25.315
100	21.994	21.974	36.890	204.1	0.276	25.662
125	21.025	21.001	36.827	197.1	0.332	25.885
150	20.376	20.348	36.784	191.5	0.384	26.030
200	19.239	19.203	36.682	188.6	0.480	26.255
250	18.600	18.556	36.616	192.5	0.569	26.371
300	18.272	18.220	36.579	196.2	0.656	26.427
400	17.696	17.627	36.493	194.8	0.824	26.508
500	16.405	16.323	36.255	182.1	0.986	26.638
600	14.143	14.054	35.871	163.7	1.134	26.849
700	11.610	11.518	35.509	149.7	1.261	27.076
800	9.411	9.318	35.239	144.2	1.368	27.254
900	7.950	7.855	35.125	151.3	1.459	27.394
1000	6.955	6.856	35.061	162.3	1.539	27.487
1100	6.225	6.122	35.064	185.5	1.610	27.588
1200	5.661	5.552	35.082	214.2	1.671	27.674
1300	5.201	5.087	35.068	230.2	1.727	27.719
1400	4.797	4.677	35.047	242.1	1.779	27.750
1500	4.543	4.417	35.036	247.7	1.829	27.770
1750	4.016	3.872	35.004	257.2	1.949	27.802
2000	3.657	3.494	34.984	260.4	2.063	27.825
2500	3.127	2.925	34.952	263.8	2.286	27.854
3000	2.758	2.513	34.929	266.0	2.503	27.872
3500	2.473	2.181	34.910	269.2	2.717	27.885
4000	2.333	1.990	34.898	268.5	2.933	27.891
4500	2.293	1.892	34.890	266.3	3.156	27.892
5000	2.256	1.795	34.880	262.0	3.390	27.892
5500	2.137	1.616	34.858	254.5	3.632	27.887

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5591	1	2.121	1.588	34.855	250.3
4864	2	2.269	1.825	34.885	260.4
4349	3	2.299	1.916	34.895	265.9
3824	4	2.368	2.043	34.901	268.2
3305	5	2.579	2.306	34.918	267.9
2791	6	2.904	2.677	34.941	263.0
2270	7	3.463	3.277	34.987	256.1
1851	8	3.867	3.715	34.994	258.0
1596	9	4.338	4.205	35.027	250.6
1340	10	5.010	4.893	35.061	235.6
1133	11	5.988	5.883	35.075	199.9
984	13	7.057	6.959	35.064	159.6
880	14	8.215	8.121	35.138	147.4
775	15	9.759	9.668	35.274	141.8
675	16	11.926	11.836	35.549	149.8
569	17	14.618	14.532	35.947	165.4
405	18	17.488	17.419	36.454	193.5
285	19	18.276	18.225	36.580	196.8
229	20	18.779	18.738	36.634	190.9
177	21	19.650	19.618	36.721	187.0
130	22	21.010	20.985	36.823	195.5
56	23	23.583	23.571	36.775	211.3
3	24	23.742	23.741	36.779	211.2

Abaco February – March 2013 R/V Brown  
 CTD Station 2 (CTD002)  
 Latitude 26.499 N Longitude 70.085 W  
 18-Feb-2012 12:10 Z

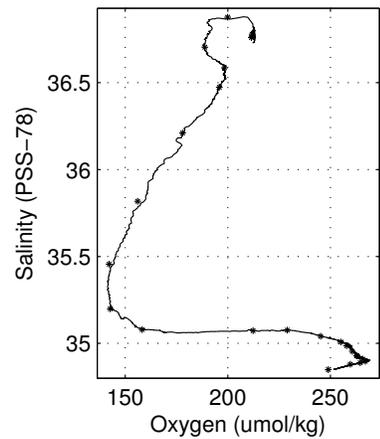
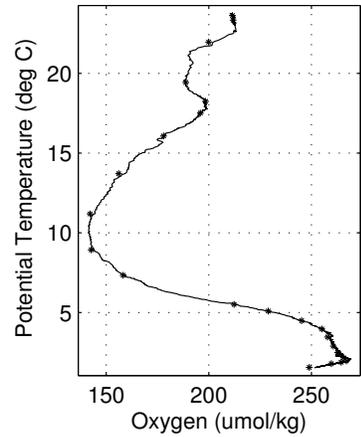
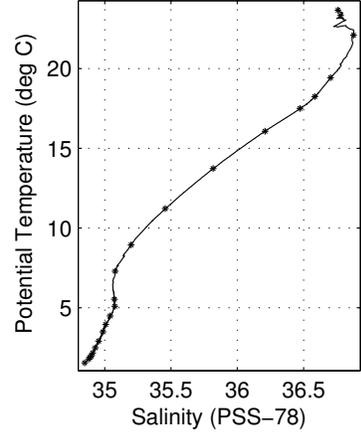
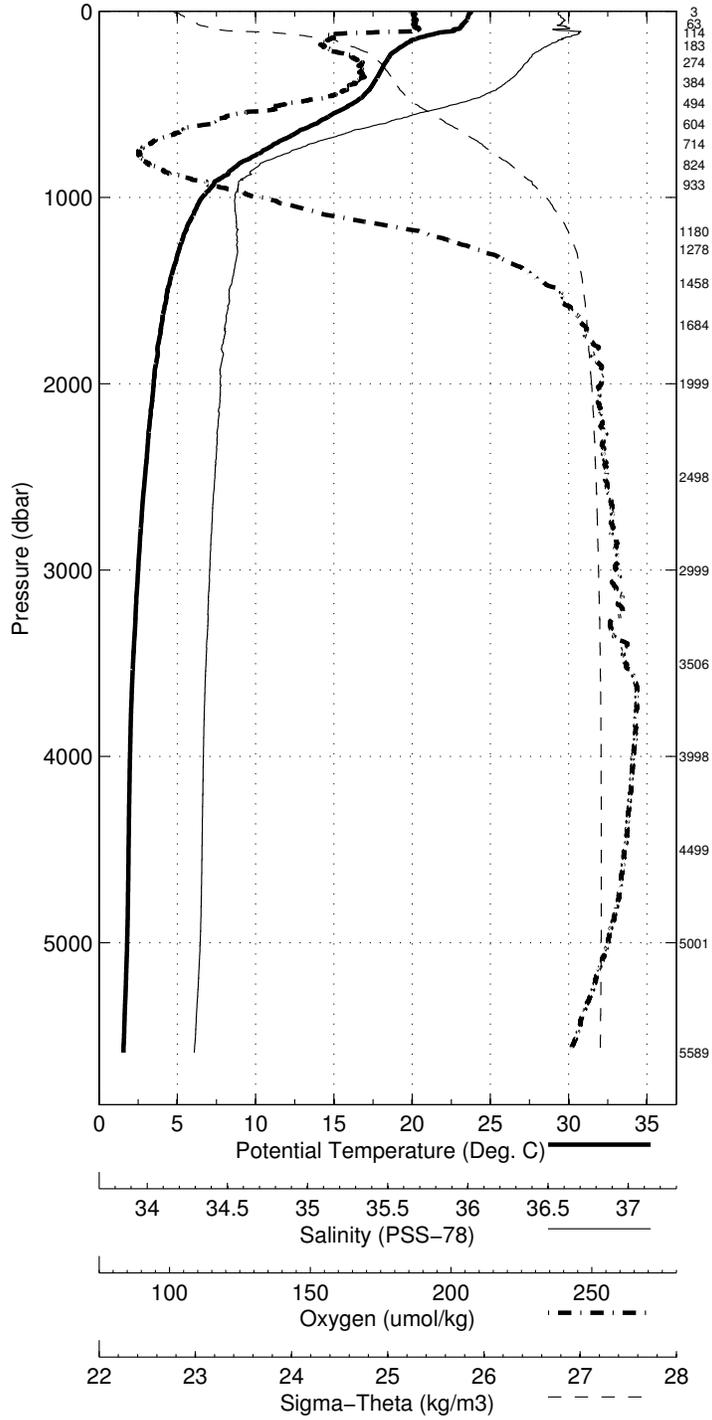


Abaco February - March 2012 R/V Brown  
 CTD Station 3 (CTD003)  
 Latitude 26.499N Longitude 70.498W  
 18-Feb-2012 23:43Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.766	23.766	36.764	210.8	0.003	25.047
10	23.678	23.676	36.758	211.8	0.029	25.070
20	23.621	23.617	36.762	212.1	0.058	25.090
30	23.567	23.561	36.771	211.7	0.086	25.113
50	23.470	23.460	36.794	212.3	0.143	25.160
75	23.170	23.154	36.753	212.4	0.213	25.219
100	22.676	22.656	36.739	212.9	0.281	25.353
125	21.372	21.347	36.861	191.0	0.341	25.815
150	20.238	20.210	36.784	190.3	0.393	26.067
200	19.181	19.145	36.677	189.7	0.488	26.266
250	18.523	18.479	36.611	196.5	0.576	26.387
300	18.178	18.126	36.571	198.2	0.662	26.445
400	17.506	17.438	36.464	195.5	0.828	26.533
500	16.192	16.111	36.217	178.8	0.989	26.659
600	14.063	13.974	35.858	160.5	1.134	26.856
700	11.574	11.482	35.495	145.0	1.261	27.072
800	9.462	9.369	35.237	142.8	1.369	27.244
900	7.751	7.657	35.095	154.8	1.461	27.399
1000	6.674	6.577	35.064	173.1	1.538	27.527
1100	6.075	5.973	35.068	191.4	1.605	27.610
1200	5.510	5.403	35.070	215.4	1.665	27.683
1300	5.138	5.024	35.075	230.7	1.719	27.732
1400	4.811	4.691	35.057	241.0	1.771	27.756
1500	4.496	4.370	35.033	248.8	1.820	27.773
1750	4.008	3.865	35.006	256.1	1.939	27.805
2000	3.652	3.490	34.986	259.7	2.053	27.827
2500	3.138	2.936	34.958	260.8	2.274	27.857
3000	2.738	2.493	34.930	263.6	2.489	27.874
3500	2.459	2.167	34.910	265.9	2.702	27.886
4000	2.315	1.972	34.897	267.8	2.916	27.891
4500	2.283	1.883	34.889	265.6	3.138	27.892
5000	2.253	1.792	34.880	261.4	3.372	27.892
5500	2.116	1.595	34.855	253.3	3.614	27.887

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5589	1	2.083	1.552	34.849	248.9
5002	2	2.254	1.792	34.880	259.7
4499	3	2.285	1.884	34.889	264.5
3998	4	2.317	1.974	34.897	267.0
3507	5	2.459	2.167	34.910	265.7
3000	6	2.740	2.495	34.929	262.8
2499	7	3.110	2.908	34.954	260.7
1999	8	3.648	3.485	34.987	257.9
1685	9	4.097	3.959	35.008	255.1
1458	10	4.608	4.485	35.041	245.2
1279	11	5.212	5.099	35.076	228.9
1181	13	5.639	5.532	35.073	212.3
933	14	7.391	7.296	35.079	158.2
824	15	9.041	8.948	35.198	142.6
714	16	11.314	11.222	35.456	142.1
604	17	13.826	13.738	35.818	156.0
495	18	16.158	16.078	36.210	178.0
384	19	17.565	17.500	36.473	195.8
274	20	18.296	18.248	36.585	198.4
184	21	19.468	19.434	36.703	188.8
114	22	22.119	22.096	36.876	199.9
64	23	23.353	23.340	36.779	211.8
3	24	23.670	23.670	36.760	211.5

Abaco February – March 2013 R/V Brown  
 CTD Station 3 (CTD003)  
 Latitude 26.499 N Longitude 70.498 W  
 18-Feb-2012 23:43 Z

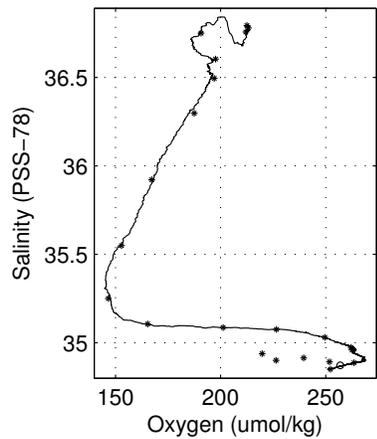
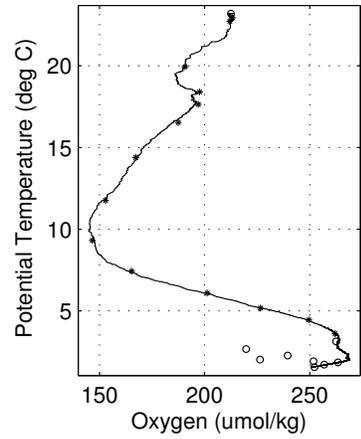
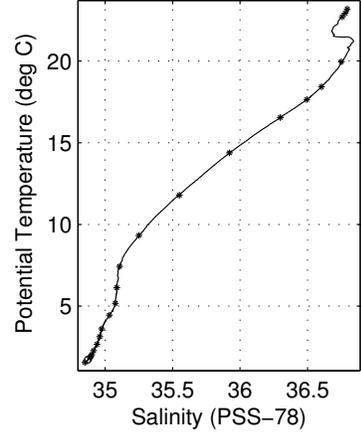
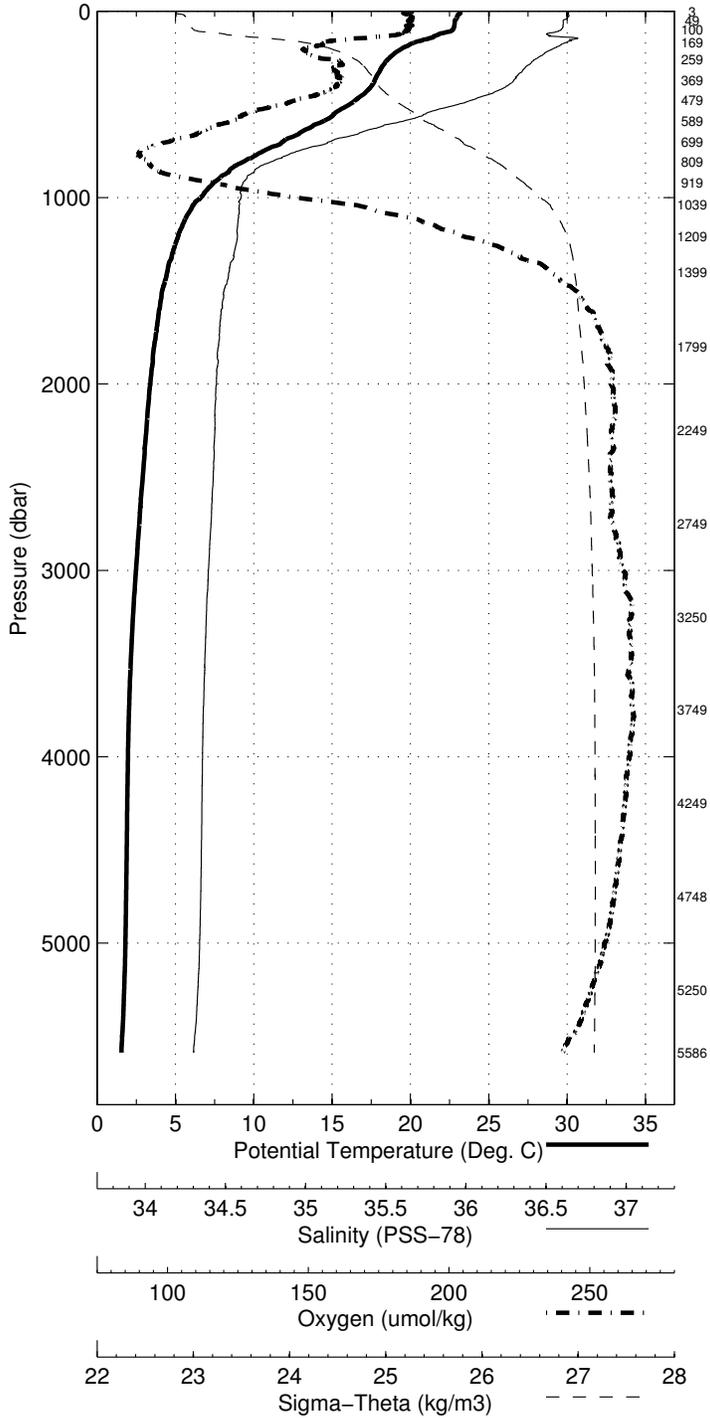


Abaco February - March 2012 R/V Brown  
 CTD Station 4 (CTD004)  
 Latitude 26.500N Longitude 70.998W  
 19-Feb-2012 06:03Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.186	23.186	36.795	213.4	0.003	25.241
10	23.189	23.187	36.793	211.3	0.027	25.240
20	23.023	23.019	36.795	212.8	0.054	25.290
30	22.983	22.977	36.792	213.5	0.081	25.300
50	22.843	22.833	36.765	213.5	0.134	25.322
75	22.821	22.806	36.765	212.7	0.201	25.329
100	22.711	22.691	36.753	212.2	0.268	25.353
125	21.817	21.792	36.681	210.3	0.332	25.554
150	21.077	21.048	36.825	198.7	0.390	25.871
200	19.482	19.445	36.715	186.1	0.490	26.217
250	18.712	18.668	36.634	190.3	0.580	26.356
300	18.218	18.166	36.570	193.9	0.666	26.434
400	17.595	17.526	36.476	194.7	0.834	26.520
500	16.205	16.123	36.222	181.2	0.994	26.659
600	14.273	14.184	35.893	166.7	1.141	26.838
700	11.947	11.853	35.555	152.9	1.270	27.049
800	9.581	9.487	35.268	147.3	1.380	27.248
900	7.854	7.760	35.123	158.3	1.471	27.406
1000	6.704	6.607	35.096	184.6	1.547	27.548
1100	5.814	5.713	35.083	210.9	1.610	27.654
1200	5.298	5.192	35.077	225.8	1.666	27.714
1300	4.911	4.799	35.059	239.2	1.717	27.745
1400	4.593	4.475	35.033	248.2	1.767	27.761
1500	4.276	4.153	35.007	254.5	1.815	27.775
1750	3.875	3.734	34.983	261.1	1.933	27.800
2000	3.562	3.401	34.969	263.5	2.046	27.822
2500	3.114	2.912	34.952	263.0	2.268	27.855
3000	2.723	2.478	34.926	266.2	2.484	27.873
3500	2.434	2.144	34.907	268.2	2.696	27.886
4000	2.315	1.972	34.896	267.8	2.909	27.891
4500	2.290	1.889	34.890	265.5	3.132	27.892
5000	2.265	1.804	34.881	261.7	3.367	27.892
5500	2.115	1.595	34.855	253.2	3.610	27.887

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5586	1	2.083	1.553	34.850	252.2
5250	2	2.217	1.726	34.872	256.9
4749	3	2.283	1.852	34.887	263.5
4249	4	2.295	1.923	34.892	251.8
3749	5	2.347	2.032	34.900	226.4
3250	6	2.545	2.278	34.915	239.5
2750	7	2.896	2.673	34.938	219.8
2250	8	3.319	3.138	34.959	262.6
1800	9	3.753	3.608	34.974	262.0
1400	10	4.569	4.452	35.031	249.6
1210	11	5.284	5.177	35.075	226.5
1039	13	6.224	6.126	35.086	201.3
920	14	7.526	7.431	35.106	165.3
809	15	9.422	9.328	35.250	146.5
699	16	11.876	11.782	35.549	152.9
589	17	14.469	14.380	35.921	167.3
480	18	16.617	16.538	36.298	187.4
369	19	17.697	17.634	36.495	197.0
260	20	18.462	18.416	36.604	197.6
169	21	19.979	19.947	36.751	190.7
100	22	22.714	22.693	36.757	211.9
50	23	22.933	22.923	36.780	213.2
3	24	23.173	23.173	36.794	212.6

Abaco February – March 2013 R/V Brown  
 CTD Station 4 (CTD004)  
 Latitude 26.500 N Longitude 70.998 W  
 19-Feb-2012 06:03 Z

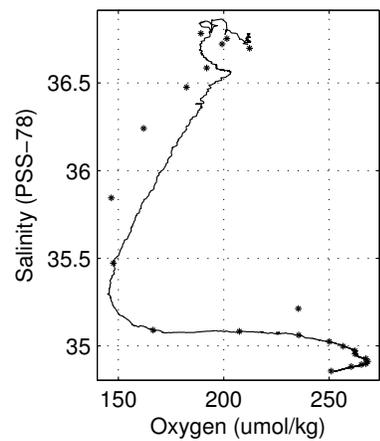
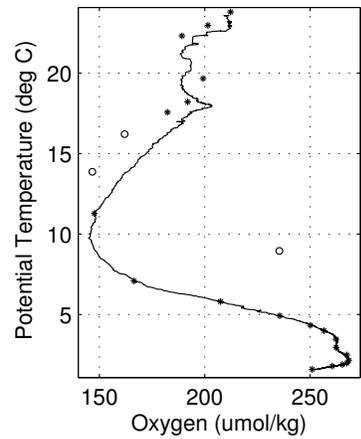
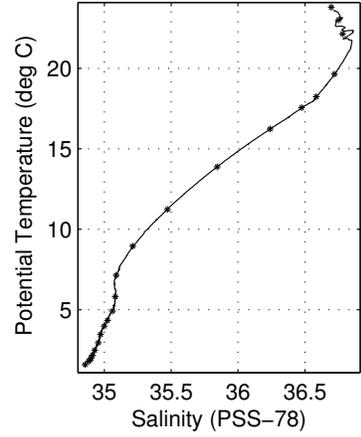
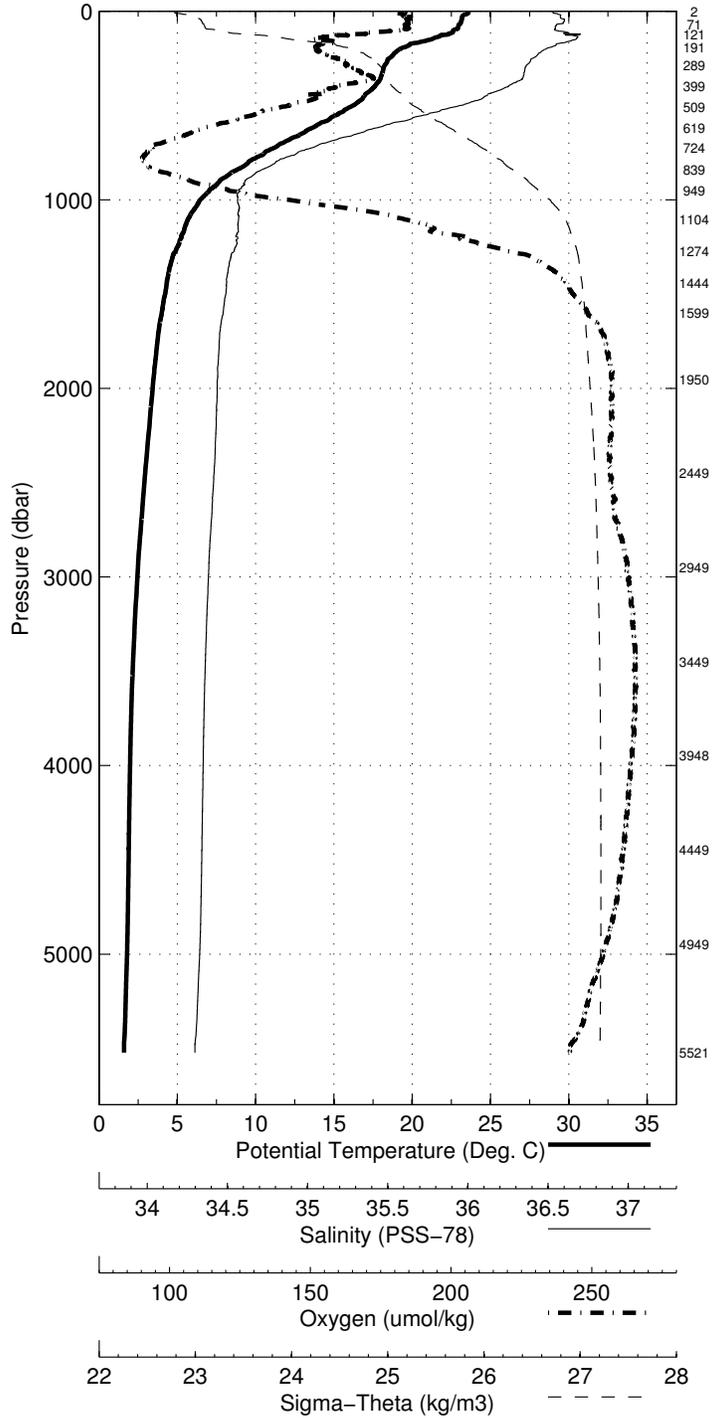


Abaco February - March 2012 R/V Brown  
 CTD Station 5 (CTD005)  
 Latitude 26.498N Longitude 71.501W  
 19-Feb-2012 12:28Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.587	23.587	36.722	211.2	0.003	25.069
10	23.580	23.578	36.724	209.2	0.029	25.073
20	23.291	23.287	36.761	211.2	0.057	25.186
30	23.194	23.187	36.760	212.6	0.085	25.214
50	23.153	23.143	36.780	211.8	0.140	25.243
75	22.981	22.966	36.740	211.9	0.208	25.264
100	22.668	22.647	36.729	210.2	0.276	25.348
125	22.080	22.055	36.830	194.2	0.340	25.594
150	21.216	21.187	36.839	188.3	0.398	25.843
200	19.279	19.243	36.686	189.0	0.497	26.248
250	18.556	18.512	36.614	193.9	0.586	26.380
300	18.221	18.168	36.576	198.5	0.672	26.438
400	17.681	17.612	36.488	193.2	0.840	26.509
500	16.297	16.215	36.237	182.3	1.001	26.650
600	14.091	14.002	35.862	164.5	1.148	26.853
700	11.753	11.661	35.523	150.3	1.276	27.060
800	9.636	9.542	35.276	146.3	1.385	27.245
900	7.791	7.697	35.115	157.8	1.476	27.410
1000	6.551	6.455	35.076	182.3	1.552	27.553
1100	5.801	5.701	35.082	210.4	1.616	27.655
1200	5.365	5.259	35.078	225.9	1.672	27.706
1300	4.810	4.700	35.041	242.5	1.724	27.742
1400	4.526	4.409	35.023	249.3	1.773	27.761
1500	4.344	4.220	35.015	253.0	1.822	27.775
1750	3.869	3.727	34.980	261.1	1.939	27.799
2000	3.578	3.417	34.969	262.7	2.053	27.821
2500	3.095	2.893	34.951	262.5	2.275	27.856
3000	2.689	2.445	34.924	266.7	2.489	27.874
3500	2.435	2.144	34.907	268.5	2.700	27.886
4000	2.322	1.979	34.897	267.5	2.914	27.891
4500	2.287	1.886	34.890	265.1	3.137	27.892
5000	2.244	1.783	34.879	261.0	3.371	27.892
5500	2.112	1.592	34.854	252.4	3.612	27.887

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5522	1	2.114	1.591	34.856	250.9
4950	2	2.251	1.797	34.882	260.4
4450	3	2.288	1.894	34.894	265.3
3949	4	2.331	1.993	34.899	267.4
3450	5	2.467	2.181	34.911	268.3
2949	6	2.734	2.494	34.928	267.4
2449	7	3.150	2.952	34.955	262.3
1950	8	3.633	3.476	34.972	262.2
1599	9	4.117	3.986	34.999	256.6
1444	10	4.471	4.351	35.025	250.1
1275	11	5.038	4.928	35.062	235.5
1104	13	5.912	5.811	35.083	207.4
949	14	7.238	7.142	35.090	166.5
840	15	9.046	8.950	35.213	235.4
724	16	11.331	11.237	35.472	147.7
620	17	13.982	13.891	35.844	146.7
510	18	16.320	16.237	36.240	162.0
400	19	17.625	17.556	36.475	182.3
290	20	18.291	18.240	36.585	191.9
191	21	19.685	19.650	36.721	199.2
121	22	22.168	22.143	36.782	189.1
71	23	23.027	23.013	36.752	201.5
3	24	23.802	23.802	36.697	212.2

Abaco February – March 2013 R/V Brown  
 CTD Station 5 (CTD005)  
 Latitude 26.498 N Longitude 71.501 W  
 19-Feb-2012 12:28 Z

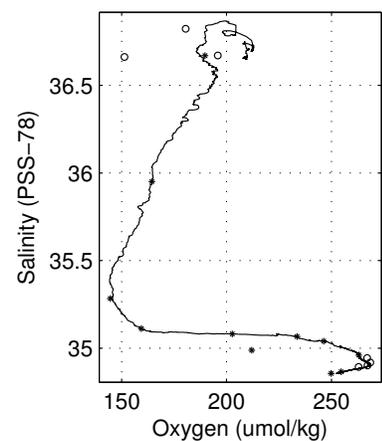
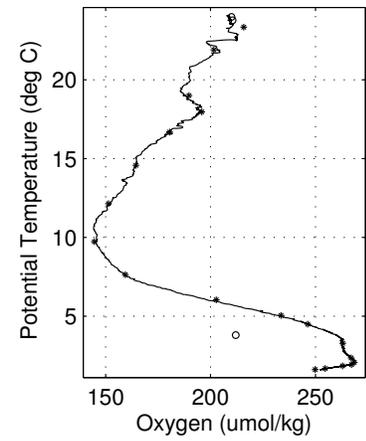
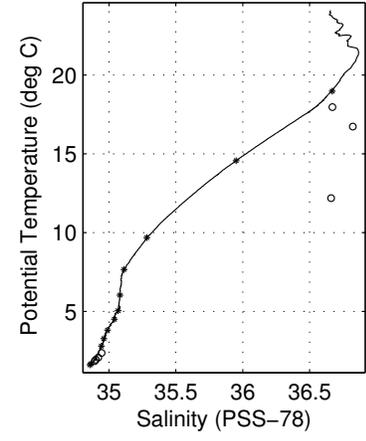
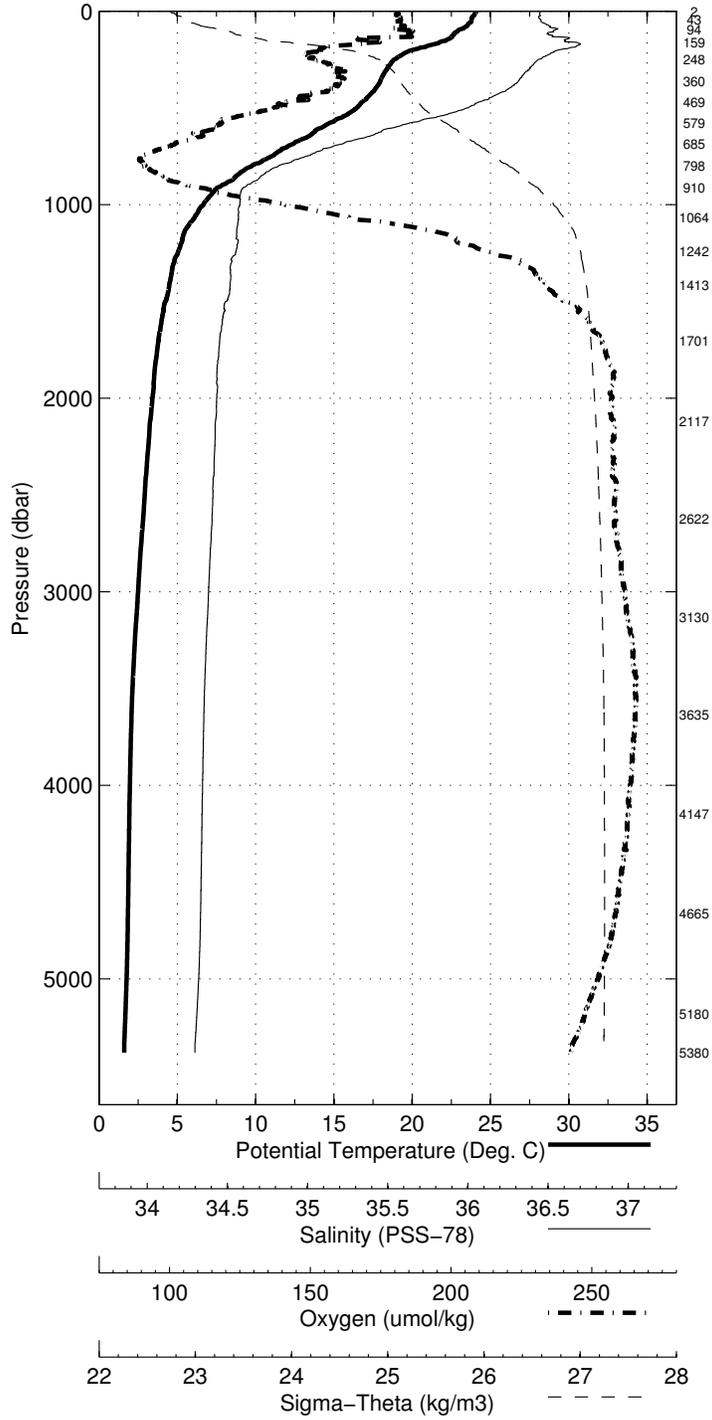


Abaco February - March 2012 R/V Brown  
 CTD Station 6 (CTD006)  
 Latitude 26.500N Longitude 71.999W  
 19-Feb-2012 19:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.098	24.098	36.659	208.4	0.003	24.869
10	24.018	24.015	36.654	208.5	0.031	24.889
20	23.970	23.965	36.657	209.0	0.061	24.907
30	23.838	23.832	36.650	209.0	0.091	24.941
50	23.791	23.780	36.662	209.3	0.152	24.966
75	23.540	23.525	36.703	210.7	0.226	25.072
100	22.928	22.908	36.726	212.8	0.296	25.270
125	22.635	22.610	36.723	212.9	0.364	25.354
150	22.197	22.167	36.783	201.5	0.428	25.526
200	20.067	20.029	36.754	190.1	0.539	26.093
250	18.878	18.833	36.647	188.7	0.633	26.324
300	18.435	18.382	36.601	195.3	0.721	26.403
400	17.715	17.646	36.493	192.2	0.890	26.503
500	16.544	16.462	36.279	178.4	1.053	26.624
600	14.337	14.247	35.899	163.2	1.203	26.830
700	12.131	12.037	35.574	151.4	1.334	27.028
800	9.842	9.747	35.292	145.4	1.446	27.223
900	7.931	7.836	35.127	156.8	1.539	27.398
1000	6.758	6.661	35.090	180.8	1.616	27.537
1100	5.862	5.761	35.079	208.3	1.681	27.646
1200	5.352	5.246	35.080	224.6	1.737	27.709
1300	4.888	4.777	35.046	239.6	1.789	27.738
1400	4.628	4.510	35.040	245.7	1.839	27.763
1500	4.352	4.228	35.017	251.2	1.887	27.775
1750	3.852	3.710	34.980	261.0	2.005	27.801
2000	3.564	3.403	34.970	262.8	2.119	27.823
2500	3.115	2.913	34.950	263.4	2.340	27.853
3000	2.736	2.491	34.927	266.0	2.556	27.873
3500	2.423	2.133	34.906	268.6	2.769	27.886
4000	2.309	1.966	34.896	267.2	2.982	27.891
4500	2.272	1.872	34.888	264.5	3.204	27.892
5000	2.218	1.758	34.876	259.1	3.437	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5381	1	2.109	1.605	34.856	249.9
5180	2	2.160	1.679	34.866	254.6
4665	3	2.260	1.840	34.893	262.9
4148	4	2.290	1.930	34.901	267.1
3635	5	2.372	2.068	34.919	268.5
3131	6	2.611	2.355	34.944	267.0
2623	7	3.000	2.788	34.943	-999.0
2118	8	3.438	3.267	34.961	263.0
1701	9	3.945	3.806	34.988	212.0
1413	10	4.624	4.505	35.040	246.3
1242	11	5.147	5.039	35.067	233.5
1064	13	6.129	6.030	35.082	202.7
911	14	7.747	7.652	35.112	159.4
799	15	9.771	9.676	35.283	144.6
686	16	12.278	12.184	36.662	151.3
579	17	14.654	14.566	35.951	164.4
470	18	16.804	16.726	36.823	180.5
360	19	18.023	17.960	36.670	195.8
249	20	19.018	18.973	36.670	189.7
160	21	22.029	22.155	-999.000	-999.0
95	22	23.315	23.384	-999.000	-999.0
44	23	23.785	23.816	-999.000	-999.0
3	24	24.028	24.030	-999.000	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 6 (CTD006)  
 Latitude 26.500 N Longitude 71.999 W  
 19-Feb-2012 19:45 Z

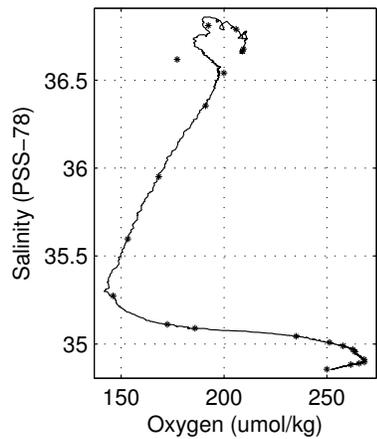
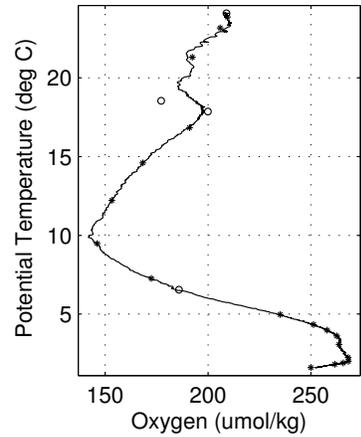
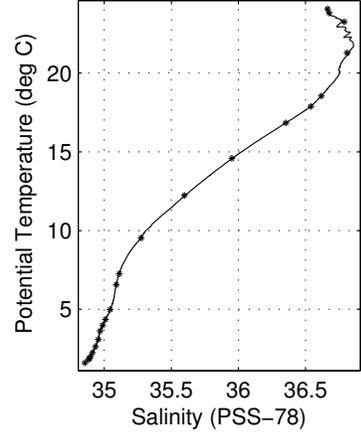
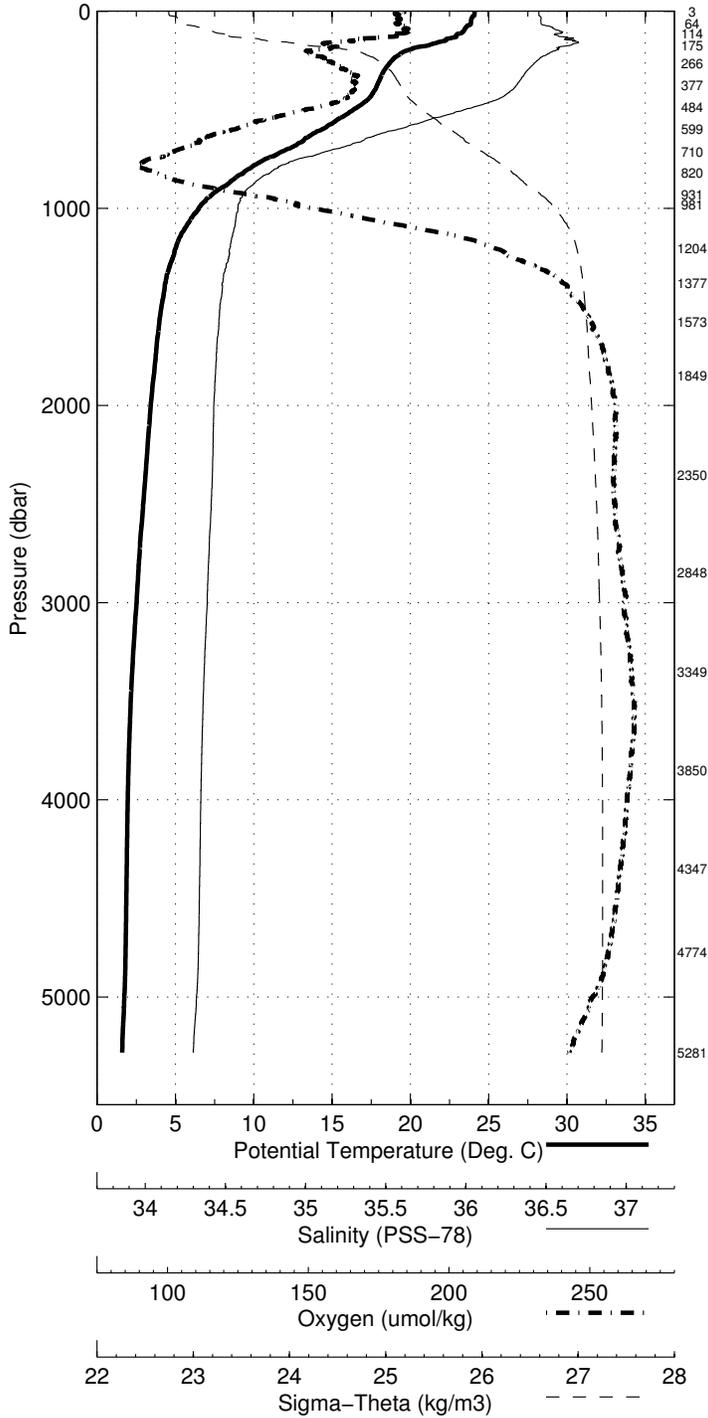


Abaco February - March 2012 R/V Brown  
 CTD Station 7 (CTD007)  
 Latitude 26.500N Longitude 72.381W  
 20-Feb-2012 01:39Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.104	24.103	36.656	210.1	0.003	24.865
10	24.104	24.102	36.654	207.9	0.031	24.864
20	24.095	24.091	36.655	208.5	0.062	24.868
30	23.976	23.970	36.664	208.5	0.092	24.911
50	23.888	23.878	36.665	208.5	0.153	24.939
75	23.649	23.633	36.702	210.0	0.228	25.040
100	23.439	23.418	36.763	210.5	0.300	25.149
125	22.964	22.938	36.755	208.0	0.370	25.283
150	22.275	22.245	36.841	196.1	0.435	25.548
200	19.803	19.766	36.741	185.8	0.544	26.153
250	18.882	18.837	36.648	190.4	0.636	26.323
300	18.391	18.338	36.595	195.8	0.724	26.409
400	17.795	17.726	36.513	197.4	0.894	26.500
500	16.435	16.353	36.265	185.3	1.057	26.639
600	14.435	14.345	35.917	166.3	1.206	26.822
700	12.216	12.121	35.588	152.8	1.337	27.023
800	9.777	9.683	35.282	144.1	1.449	27.227
900	7.955	7.860	35.138	162.0	1.542	27.404
1000	6.584	6.488	35.088	186.7	1.617	27.559
1100	5.705	5.605	35.068	213.0	1.680	27.656
1200	5.133	5.030	35.048	232.9	1.735	27.710
1300	4.727	4.618	35.027	244.3	1.786	27.740
1400	4.435	4.319	35.008	251.7	1.836	27.758
1500	4.229	4.106	34.994	255.7	1.884	27.771
1750	3.884	3.742	34.976	261.4	2.002	27.793
2000	3.584	3.423	34.962	264.1	2.118	27.815
2500	3.144	2.941	34.949	263.9	2.343	27.849
3000	2.769	2.523	34.929	266.0	2.561	27.871
3500	2.435	2.144	34.907	268.9	2.775	27.885
4000	2.300	1.957	34.895	267.0	2.989	27.891
4500	2.268	1.868	34.888	264.4	3.210	27.892
5000	2.194	1.735	34.872	258.1	3.443	27.890

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5281	1	2.091	1.600	34.856	250.0
4774	2	2.251	1.818	34.883	261.6
4348	3	2.275	1.893	34.890	265.7
3851	4	2.331	2.004	34.898	268.2
3349	5	2.522	2.246	34.912	268.1
2849	6	2.856	2.624	34.934	-999.0
2351	7	3.271	3.081	34.956	263.7
1849	8	3.772	3.622	34.970	262.5
1574	9	4.117	3.988	34.989	257.8
1378	10	4.469	4.355	35.009	251.3
1205	11	5.088	4.984	35.044	235.0
982	13	6.649	6.554	35.089	185.9
931	14	7.346	7.252	35.112	172.4
821	15	9.618	9.522	35.274	146.1
711	16	12.335	12.238	35.597	153.2
599	17	14.685	14.594	35.952	168.3
485	18	16.914	16.833	36.354	191.0
378	19	17.948	17.882	36.541	200.0
267	20	18.593	18.545	36.618	177.3
176	21	21.318	21.284	36.811	192.4
115	22	23.275	23.251	36.790	205.9
65	23	23.828	23.815	36.677	209.5
3	24	24.084	24.083	36.665	208.9

Abaco February – March 2013 R/V Brown  
 CTD Station 7 (CTD007)  
 Latitude 26.500 N Longitude 72.381 W  
 20-Feb-2012 01:39 Z

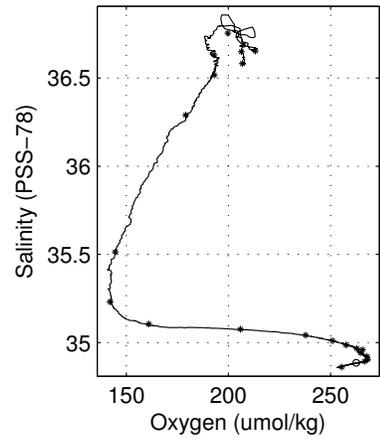
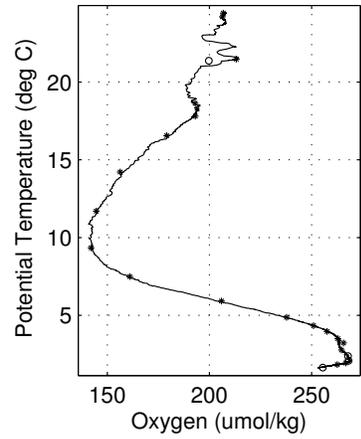
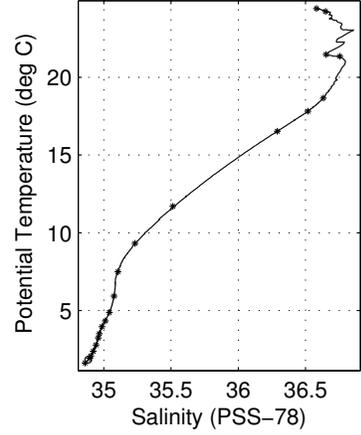
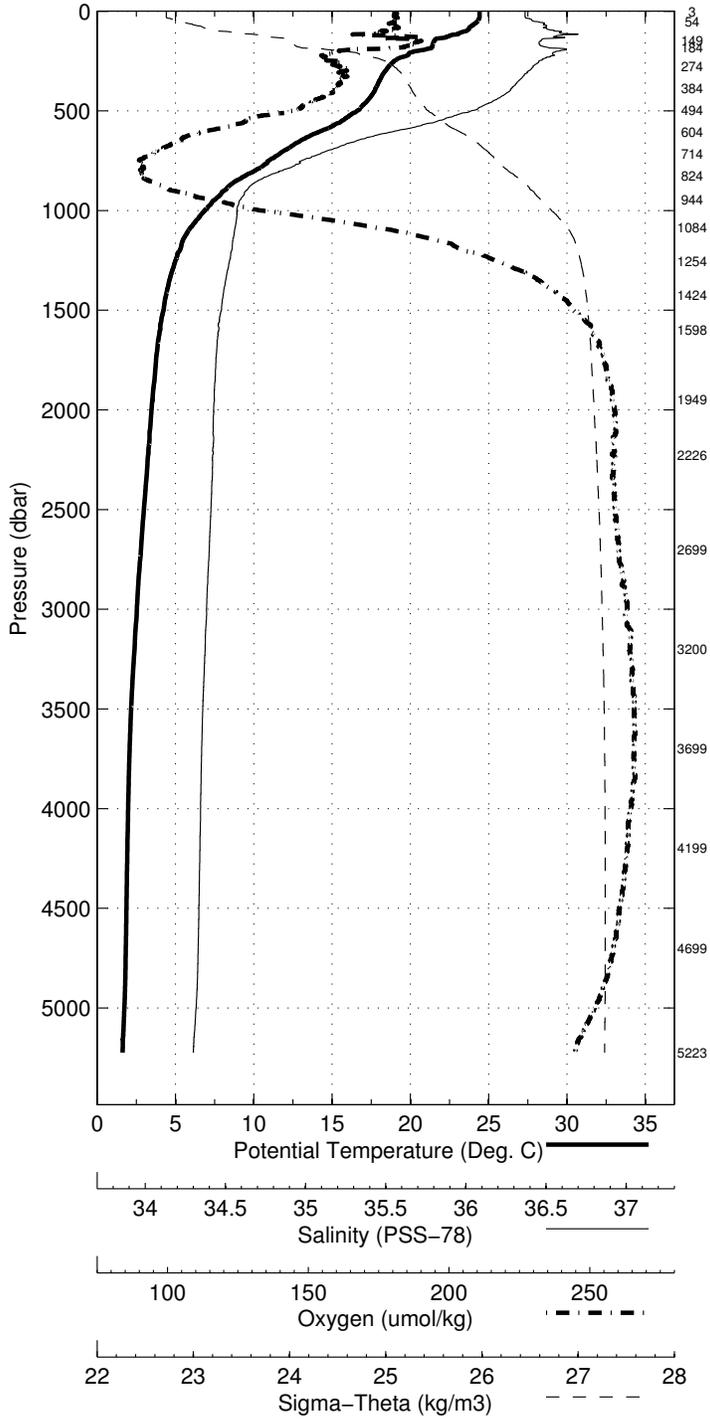


Abaco February - March 2012 R/V Brown  
 CTD Station 8 (CTD008)  
 Latitude 26.500N Longitude 72.766W  
 20-Feb-2012 08:03Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.425	24.425	36.584	207.8	0.003	24.713
10	24.427	24.425	36.582	207.0	0.032	24.712
20	24.432	24.427	36.582	208.3	0.065	24.711
30	24.430	24.424	36.583	207.7	0.097	24.713
50	24.332	24.321	36.623	207.3	0.161	24.774
75	23.896	23.880	36.693	207.9	0.238	24.959
100	23.554	23.533	36.741	205.1	0.313	25.099
125	22.520	22.494	36.744	209.0	0.381	25.403
150	21.564	21.534	36.664	213.4	0.443	25.614
200	20.371	20.334	36.754	192.8	0.560	26.011
250	19.003	18.958	36.655	192.3	0.656	26.298
300	18.449	18.396	36.600	194.0	0.745	26.399
400	17.785	17.716	36.502	191.3	0.915	26.494
500	16.674	16.592	36.302	180.9	1.079	26.612
600	14.404	14.314	35.912	158.6	1.230	26.825
700	12.027	11.933	35.556	146.1	1.360	27.034
800	10.161	10.064	35.317	141.9	1.473	27.188
900	8.210	8.113	35.134	149.8	1.570	27.362
1000	6.977	6.878	35.085	173.0	1.651	27.503
1100	5.934	5.832	35.073	206.7	1.718	27.632
1200	5.388	5.281	35.058	225.0	1.776	27.688
1300	4.908	4.796	35.037	239.2	1.829	27.728
1400	4.581	4.463	35.017	248.1	1.880	27.750
1500	4.363	4.238	35.004	252.9	1.930	27.764
1750	3.901	3.759	34.976	260.9	2.049	27.792
2000	3.632	3.470	34.964	263.6	2.166	27.812
2500	3.190	2.987	34.951	263.8	2.394	27.847
3000	2.784	2.538	34.928	266.7	2.615	27.869
3500	2.464	2.172	34.908	268.6	2.830	27.884
4000	2.325	1.982	34.897	267.7	3.045	27.890
4500	2.273	1.873	34.888	264.9	3.268	27.892
5000	2.201	1.741	34.874	258.5	3.500	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5224	1	2.116	1.631	34.861	255.5
4700	2	2.259	1.835	34.885	262.5
4199	3	2.299	1.934	34.893	266.7
3699	4	2.389	2.078	34.904	268.1
3200	5	2.643	2.380	34.921	267.9
2700	6	2.997	2.777	34.942	264.6
2226	7	3.414	3.233	34.959	265.6
1949	8	3.663	3.505	34.967	262.9
1599	9	4.096	3.965	34.987	257.6
1425	10	4.449	4.331	35.011	250.9
1255	11	4.984	4.876	35.042	237.7
1085	13	6.034	5.933	35.076	205.9
945	14	7.595	7.497	35.105	160.9
824	15	9.409	9.313	35.232	141.9
714	16	11.795	11.701	35.514	144.5
605	17	14.303	14.993	-999.000	-999.0
495	18	16.613	16.531	36.291	179.1
385	19	17.877	17.810	36.517	193.1
275	20	18.706	18.657	36.632	192.9
185	21	21.387	21.351	36.755	199.7
149	22	21.497	21.468	36.654	213.1
55	23	24.241	24.229	36.649	206.4
4	24	24.424	24.423	36.582	206.8

Abaco February – March 2013 R/V Brown  
 CTD Station 8 (CTD008)  
 Latitude 26.500 Longitude 72.766 W  
 20-Feb-2012 08:03 Z

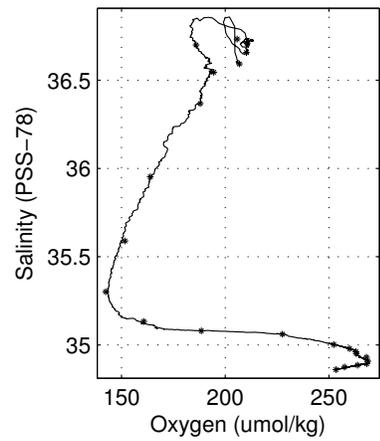
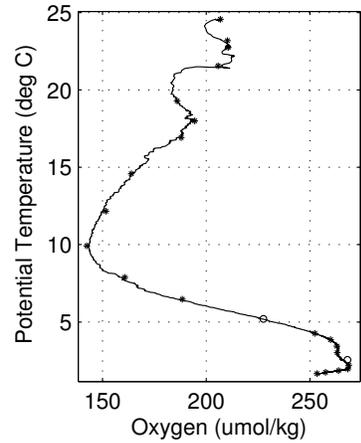
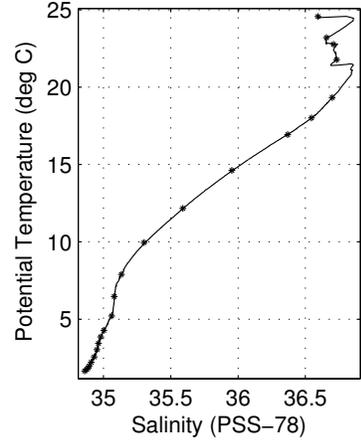
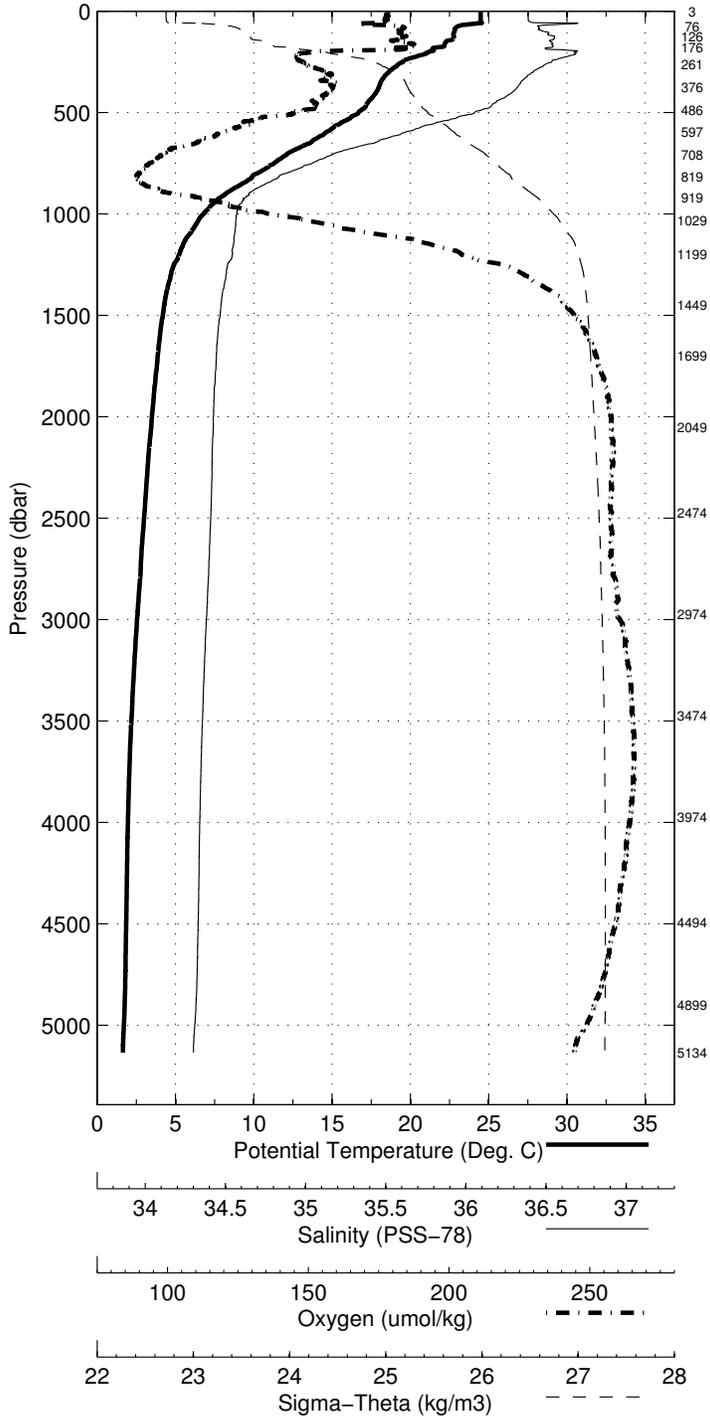


Abaco February - March 2012 R/V Brown  
 CTD Station 9 (CTD009)  
 Latitude 26.498N Longitude 73.131W  
 20-Feb-2012 13:51Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.500	24.500	36.602	206.8	0.003	24.704
10	24.500	24.498	36.600	206.0	0.032	24.704
20	24.503	24.498	36.600	206.4	0.065	24.704
30	24.503	24.496	36.600	206.1	0.097	24.704
50	24.510	24.499	36.606	205.2	0.162	24.708
75	23.031	23.016	36.654	210.4	0.237	25.184
100	22.845	22.825	36.684	210.0	0.306	25.262
125	22.811	22.785	36.736	210.5	0.374	25.313
150	22.313	22.282	36.716	210.4	0.441	25.442
200	21.264	21.225	36.840	188.1	0.564	25.833
250	19.577	19.531	36.722	185.3	0.667	26.200
300	18.690	18.637	36.627	191.4	0.758	26.358
400	17.889	17.820	36.517	191.9	0.930	26.479
500	16.768	16.684	36.320	182.5	1.095	26.603
600	14.651	14.560	35.950	164.5	1.247	26.801
700	12.290	12.195	35.597	150.6	1.381	27.015
800	10.287	10.189	35.338	144.1	1.496	27.183
900	8.305	8.208	35.150	152.1	1.594	27.360
1000	6.894	6.796	35.088	177.1	1.674	27.516
1100	5.993	5.891	35.076	204.5	1.741	27.626
1200	5.348	5.242	35.063	225.5	1.799	27.697
1300	4.822	4.711	35.032	241.4	1.852	27.734
1400	4.511	4.394	35.011	249.3	1.902	27.753
1500	4.323	4.199	35.000	253.7	1.951	27.765
1750	3.956	3.813	34.979	260.1	2.071	27.789
2000	3.660	3.498	34.965	263.3	2.189	27.810
2500	3.198	2.995	34.952	263.2	2.417	27.847
3000	2.794	2.548	34.929	265.5	2.639	27.869
3500	2.478	2.186	34.909	268.8	2.855	27.883
4000	2.311	1.968	34.895	267.9	3.070	27.890
4500	2.256	1.857	34.887	264.3	3.292	27.892
5000	2.164	1.706	34.869	256.9	3.524	27.889

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5134	1	2.130	1.657	34.861	253.4
4899	2	2.205	1.758	34.875	257.6
4495	3	2.259	1.859	34.886	263.8
3974	4	2.317	1.976	34.895	268.3
3474	5	2.503	2.214	34.909	268.7
2974	6	2.813	2.569	34.931	268.1
2474	7	3.228	3.027	34.952	263.2
2050	8	3.611	3.444	34.963	263.0
1700	9	4.002	3.863	34.979	260.0
1449	10	4.393	4.273	35.003	252.4
1200	11	5.321	5.215	35.061	227.6
1030	13	6.571	6.472	35.080	188.4
920	14	7.993	7.896	35.134	160.7
819	15	10.061	9.962	35.302	142.4
708	16	12.259	12.163	35.589	151.6
597	17	14.704	14.612	35.954	163.9
487	18	17.016	16.935	36.368	187.9
377	19	18.069	18.003	36.545	194.4
262	20	19.381	19.333	36.700	186.0
177	21	21.803	21.768	36.733	205.8
127	22	22.788	22.762	36.709	210.6
76	23	23.208	23.192	36.657	210.2
4	24	24.568	24.568	36.593	206.8

Abaco February – March 2013 R/V Brown  
 CTD Station 9 (CTD009)  
 Latitude 26.498 N Longitude 73.131 W  
 20-Feb-2012 13:51 Z

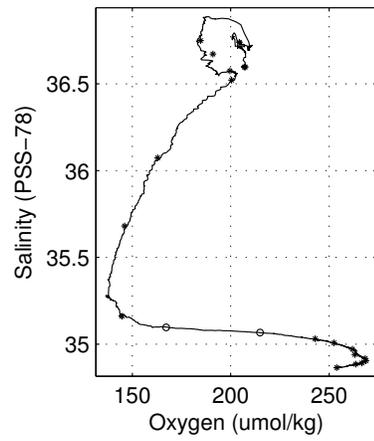
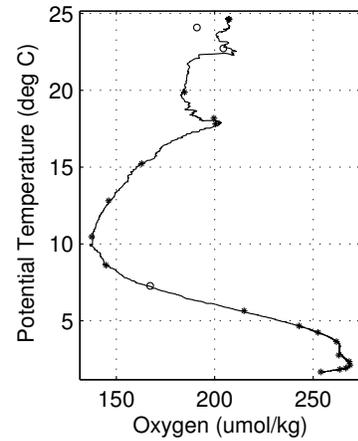
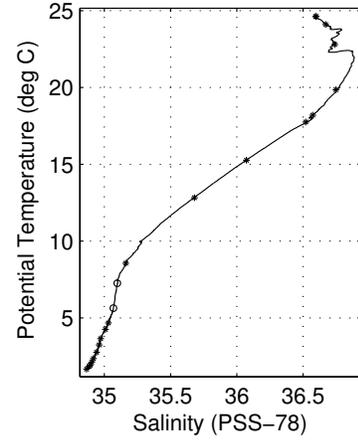
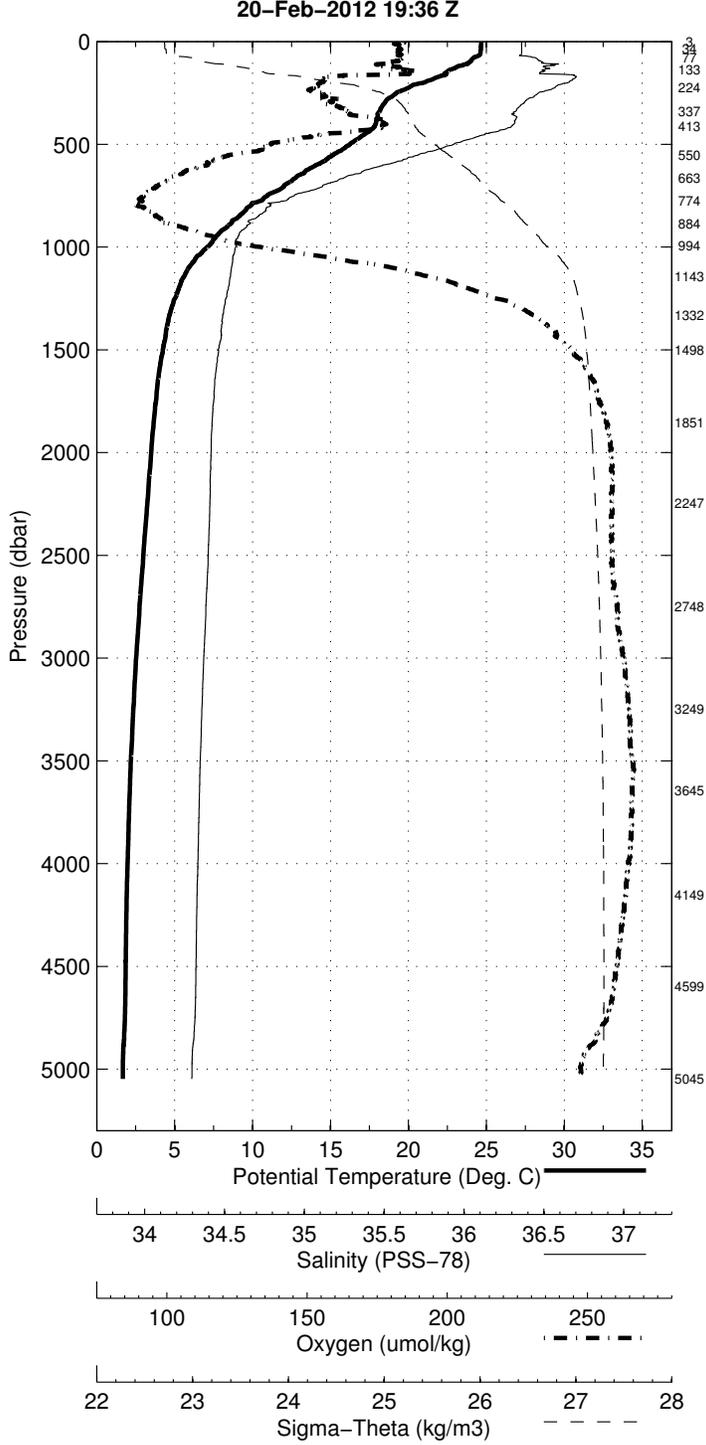


Abaco February - March 2012 R/V Brown  
 CTD Station 10 (CTD010)  
 Latitude 26.499N Longitude 73.500W  
 20-Feb-2012 19:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.667	24.667	36.600	208.2	0.003	24.653
10	24.669	24.667	36.599	205.4	0.033	24.651
20	24.666	24.662	36.599	206.9	0.066	24.653
30	24.666	24.659	36.599	206.5	0.099	24.654
50	24.636	24.625	36.599	207.2	0.164	24.665
75	24.247	24.231	36.651	207.1	0.246	24.823
100	23.944	23.923	36.704	205.5	0.323	24.955
125	23.090	23.064	36.725	206.8	0.396	25.224
150	22.452	22.422	36.695	208.7	0.463	25.386
200	21.010	20.971	36.841	185.9	0.582	25.904
250	19.260	19.215	36.686	186.6	0.681	26.255
300	18.521	18.468	36.610	188.8	0.771	26.388
400	17.973	17.904	36.559	202.8	0.941	26.491
500	16.328	16.247	36.241	172.7	1.105	26.646
600	14.173	14.083	35.875	155.9	1.252	26.846
700	12.121	12.027	35.553	142.8	1.382	27.014
800	9.966	9.871	35.279	137.5	1.497	27.192
900	8.470	8.371	35.153	148.6	1.595	27.338
1000	7.201	7.100	35.095	170.1	1.679	27.480
1100	5.999	5.897	35.073	205.0	1.747	27.624
1200	5.373	5.267	35.057	225.1	1.806	27.689
1300	4.899	4.788	35.034	239.5	1.860	27.727
1400	4.586	4.468	35.019	247.7	1.911	27.751
1500	4.367	4.243	35.005	252.8	1.960	27.764
1750	3.941	3.798	34.979	260.2	2.080	27.790
2000	3.657	3.494	34.966	263.1	2.197	27.811
2500	3.193	2.989	34.951	263.5	2.426	27.847
3000	2.778	2.532	34.928	266.4	2.646	27.869
3500	2.483	2.191	34.909	268.7	2.862	27.883
4000	2.323	1.980	34.896	267.9	3.079	27.890
4500	2.257	1.857	34.886	264.6	3.300	27.892
5000	2.137	1.680	34.866	255.1	3.531	27.889

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
5046	1	2.137	1.674	34.865	253.8
4599	2	2.260	1.848	34.885	263.5
4150	3	2.288	1.929	34.892	266.6
3646	4	2.430	2.124	34.904	268.7
3250	5	2.629	2.360	34.917	268.4
2749	6	2.995	2.770	34.940	263.1
2247	7	3.433	3.250	34.961	279.9
1852	8	3.803	3.653	34.972	261.9
1499	9	4.387	4.263	35.007	252.5
1333	10	4.788	4.675	35.031	242.9
1144	11	5.749	5.645	35.067	214.9
995	13	7.358	7.257	35.097	167.2
885	14	8.664	8.566	35.161	144.8
775	15	10.544	11.560	-999.000	-999.0
663	16	12.922	12.829	35.681	146.0
550	17	15.356	15.269	36.073	162.9
414	18	17.826	17.754	36.521	200.4
338	19	18.262	18.202	36.574	199.6
224	20	19.906	19.865	36.748	184.7
134	21	22.834	22.807	36.739	204.4
77	22	24.117	24.100	36.671	191.0
35	23	24.642	24.634	36.597	206.9
3	24	24.625	24.624	36.597	207.4

Abaco February – March 2013 R/V Brown  
 CTD Station 10 (CTD010)  
 Latitude 26.499 N Longitude 73.500 W  
 20-Feb-2012 19:36 Z

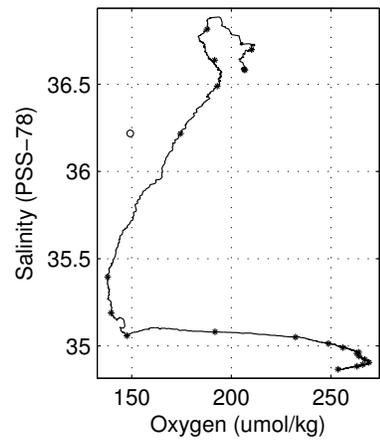
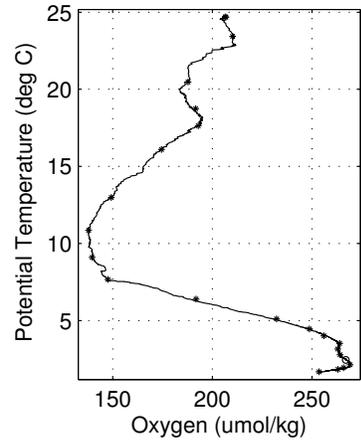
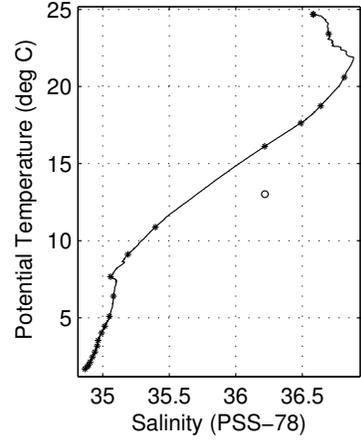
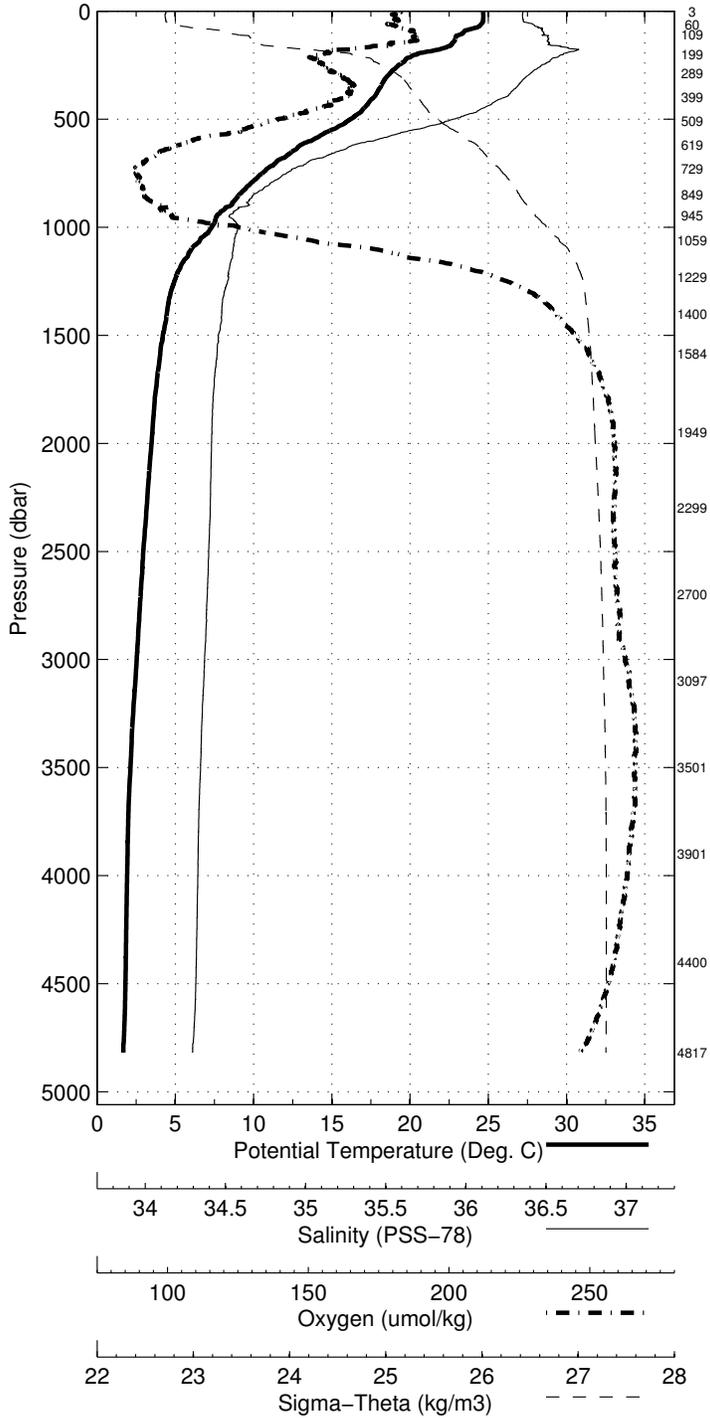


Abaco February - March 2012 R/V Brown  
 CTD Station 11 (CTD011)  
 Latitude 26.500N Longitude 73.863W  
 21-Feb-2012 01:47Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.666	24.666	36.595	207.3	0.003	24.649
10	24.666	24.664	36.593	205.8	0.033	24.648
20	24.683	24.678	36.591	206.0	0.066	24.643
30	24.684	24.678	36.593	206.5	0.099	24.644
50	24.669	24.658	36.601	206.8	0.165	24.656
75	24.301	24.285	36.672	206.6	0.245	24.822
100	23.404	23.383	36.703	210.6	0.320	25.114
125	22.933	22.907	36.729	211.5	0.390	25.272
150	22.722	22.691	36.731	205.0	0.458	25.337
200	20.492	20.454	36.806	186.1	0.577	26.018
250	19.296	19.250	36.692	186.8	0.674	26.250
300	18.602	18.548	36.616	191.3	0.765	26.372
400	17.729	17.660	36.495	193.7	0.936	26.502
500	16.252	16.171	36.227	175.4	1.098	26.653
600	13.778	13.690	35.812	151.8	1.243	26.880
700	11.515	11.424	35.465	139.9	1.368	27.060
800	9.872	9.777	35.270	137.8	1.479	27.201
900	8.619	8.520	35.155	145.6	1.578	27.316
1000	7.433	7.330	35.101	164.8	1.664	27.452
1100	6.124	6.021	35.077	200.3	1.736	27.611
1200	5.318	5.212	35.055	226.7	1.796	27.693
1300	4.815	4.705	35.030	241.3	1.848	27.733
1400	4.572	4.455	35.017	248.1	1.899	27.751
1500	4.323	4.199	34.999	253.5	1.948	27.765
1750	3.903	3.761	34.975	260.9	2.068	27.791
2000	3.637	3.475	34.964	263.5	2.184	27.811
2500	3.150	2.948	34.949	263.7	2.411	27.849
3000	2.774	2.529	34.927	266.4	2.631	27.869
3500	2.422	2.131	34.906	268.8	2.845	27.886
4000	2.261	1.919	34.892	266.8	3.056	27.892
4500	2.208	1.810	34.882	261.8	3.275	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4818	1	2.110	1.676	34.866	253.5
4400	2	2.222	1.836	34.884	263.0
3901	3	2.274	1.943	34.893	265.8
3501	4	2.423	2.132	34.905	269.1
3097	5	2.708	2.454	34.923	267.0
2700	6	3.007	2.787	34.941	264.0
2300	7	3.349	3.163	34.958	262.9
1949	8	3.684	3.526	34.965	263.8
1584	9	4.146	4.016	34.991	256.0
1401	10	4.571	4.453	35.015	248.7
1230	11	5.198	5.090	35.050	232.2
1060	13	6.500	6.399	35.081	191.8
946	14	7.759	7.661	35.059	147.6
850	15	9.203	9.106	35.190	139.6
729	16	10.974	10.882	35.396	137.9
620	17	13.104	13.016	36.219	149.2
510	18	16.200	16.117	36.217	174.5
399	19	17.703	17.634	36.489	192.9
290	20	18.799	18.748	36.638	191.6
200	21	20.631	20.593	36.815	187.7
110	22	23.448	23.425	36.698	210.1
61	23	24.701	24.688	36.584	206.4
4	24	24.679	24.679	36.582	206.8

Abaco February – March 2013 R/V Brown  
 CTD Station 11 (CTD011)  
 Latitude 26.500 Longitude 73.863 W  
 21-Feb-2012 01:47 Z

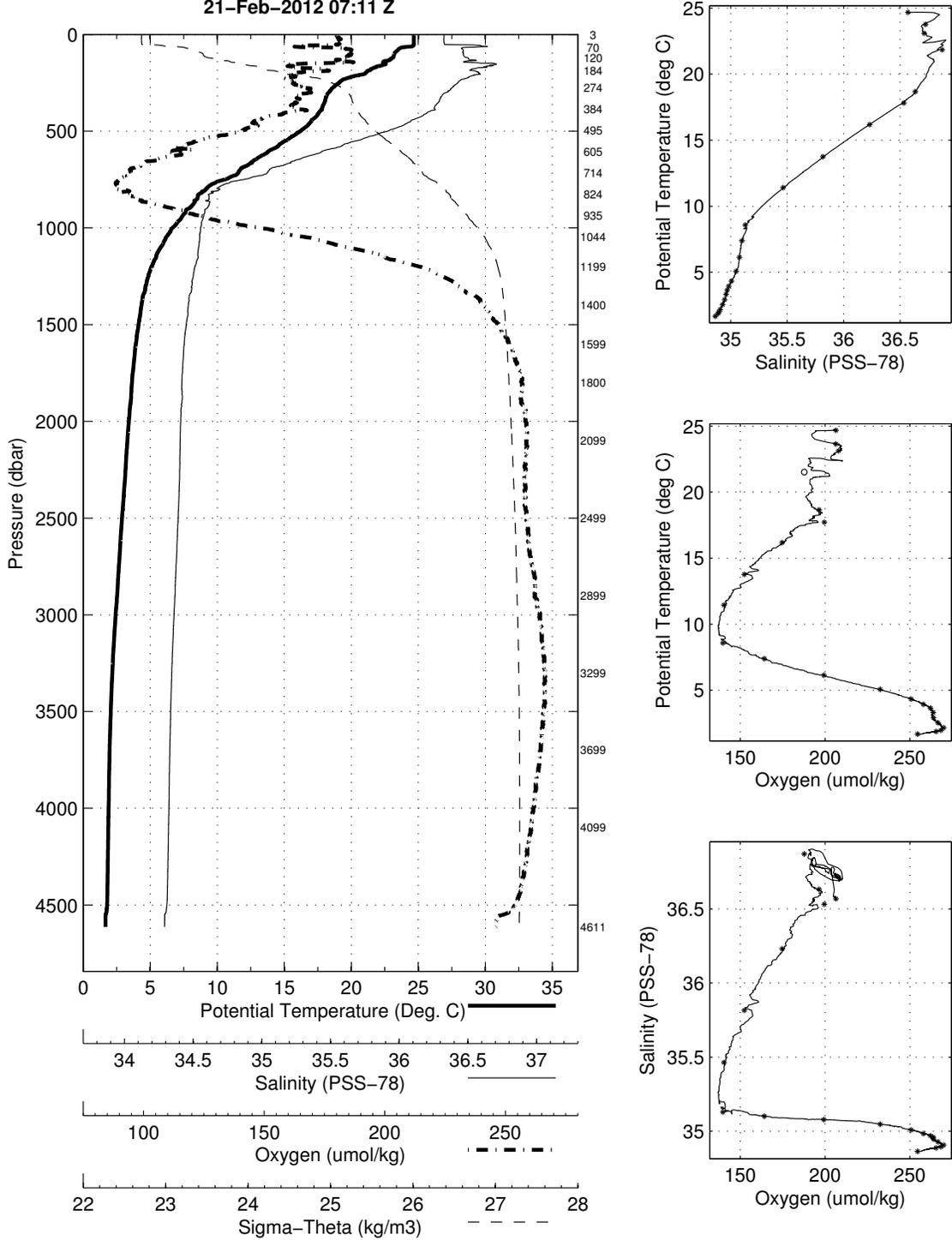


Abaco February - March 2012 R/V Brown  
 CTD Station 12 (CTD012)  
 Latitude 26.501N Longitude 74.233W  
 21-Feb-2012 07:11Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.674	24.674	36.583	204.9	0.003	24.637
10	24.673	24.671	36.581	206.1	0.033	24.637
20	24.672	24.668	36.581	206.1	0.066	24.638
30	24.679	24.672	36.581	205.9	0.099	24.637
50	24.681	24.670	36.585	206.0	0.165	24.640
75	23.553	23.538	36.694	208.5	0.242	25.062
100	23.224	23.203	36.700	209.6	0.314	25.164
125	22.986	22.960	36.732	205.8	0.384	25.260
150	22.591	22.561	36.890	196.9	0.451	25.494
200	21.089	21.050	36.796	192.9	0.570	25.848
250	19.156	19.111	36.668	191.9	0.669	26.268
300	18.356	18.303	36.594	197.2	0.757	26.417
400	17.689	17.621	36.485	191.6	0.927	26.504
500	16.273	16.192	36.232	176.0	1.089	26.651
600	13.984	13.895	35.845	154.6	1.235	26.862
700	11.804	11.711	35.510	141.5	1.363	27.040
800	9.262	9.170	35.204	137.8	1.473	27.250
900	7.983	7.888	35.123	154.7	1.565	27.387
1000	6.749	6.651	35.085	181.3	1.643	27.534
1100	5.886	5.785	35.073	208.3	1.709	27.638
1200	5.220	5.115	35.051	230.6	1.765	27.702
1300	4.780	4.670	35.031	242.6	1.817	27.738
1400	4.467	4.351	35.010	250.6	1.867	27.757
1500	4.245	4.122	34.996	255.2	1.915	27.770
1750	3.840	3.699	34.973	261.7	2.033	27.796
2000	3.567	3.406	34.963	263.4	2.148	27.817
2500	3.096	2.894	34.947	263.7	2.372	27.853
3000	2.665	2.421	34.922	267.7	2.587	27.874
3500	2.343	2.054	34.901	269.0	2.795	27.888
4000	2.237	1.896	34.891	265.8	3.004	27.892
4500	2.179	1.782	34.878	260.2	3.222	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4611	1	2.078	1.670	34.864	254.6
4100	2	2.227	1.875	34.888	265.5
3699	3	2.284	1.975	34.895	268.4
3299	4	2.444	2.175	34.907	270.0
2900	5	2.779	2.543	34.928	266.6
2500	6	3.118	2.915	34.947	264.0
2100	7	3.494	3.325	34.959	263.8
1801	8	3.789	3.643	34.969	262.2
1600	9	4.068	3.938	34.984	258.0
1401	10	4.446	4.330	35.008	250.8
1199	11	5.166	5.062	35.048	232.5
1045	13	6.225	6.127	35.078	199.3
936	14	7.484	7.388	35.101	164.2
824	15	8.663	8.572	35.129	139.7
715	16	11.495	11.402	35.464	140.4
606	17	13.832	13.743	35.816	152.4
495	18	16.259	16.179	36.231	174.7
385	19	17.875	17.809	36.532	199.5
274	20	18.711	18.662	36.633	196.5
185	21	21.878	21.842	36.871	187.8
120	22	23.116	23.091	36.713	208.0
70	23	23.779	23.764	36.725	206.3
3	24	24.689	24.688	36.569	206.4

Abaco February – March 2013 R/V Brown  
 CTD Station 12 (CTD012)  
 Latitude 26.501 N Longitude 74.233 W  
 21-Feb-2012 07:11 Z

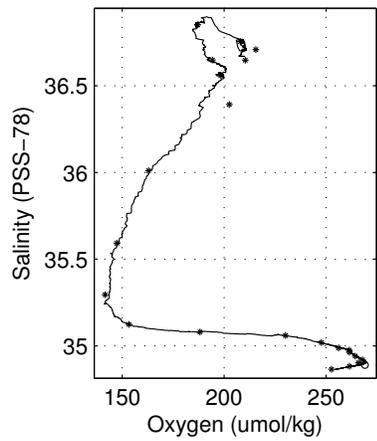
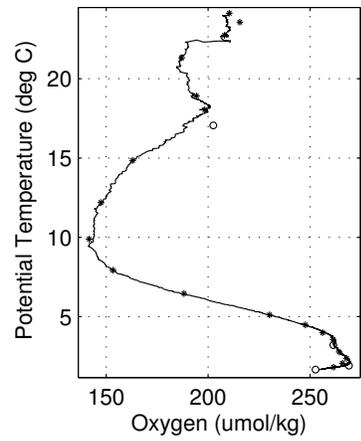
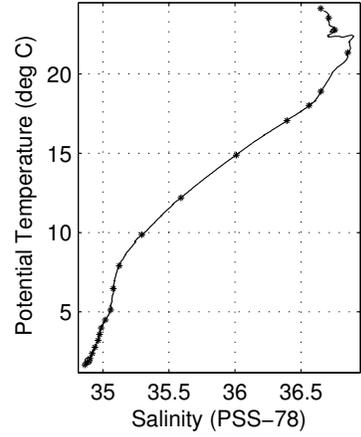
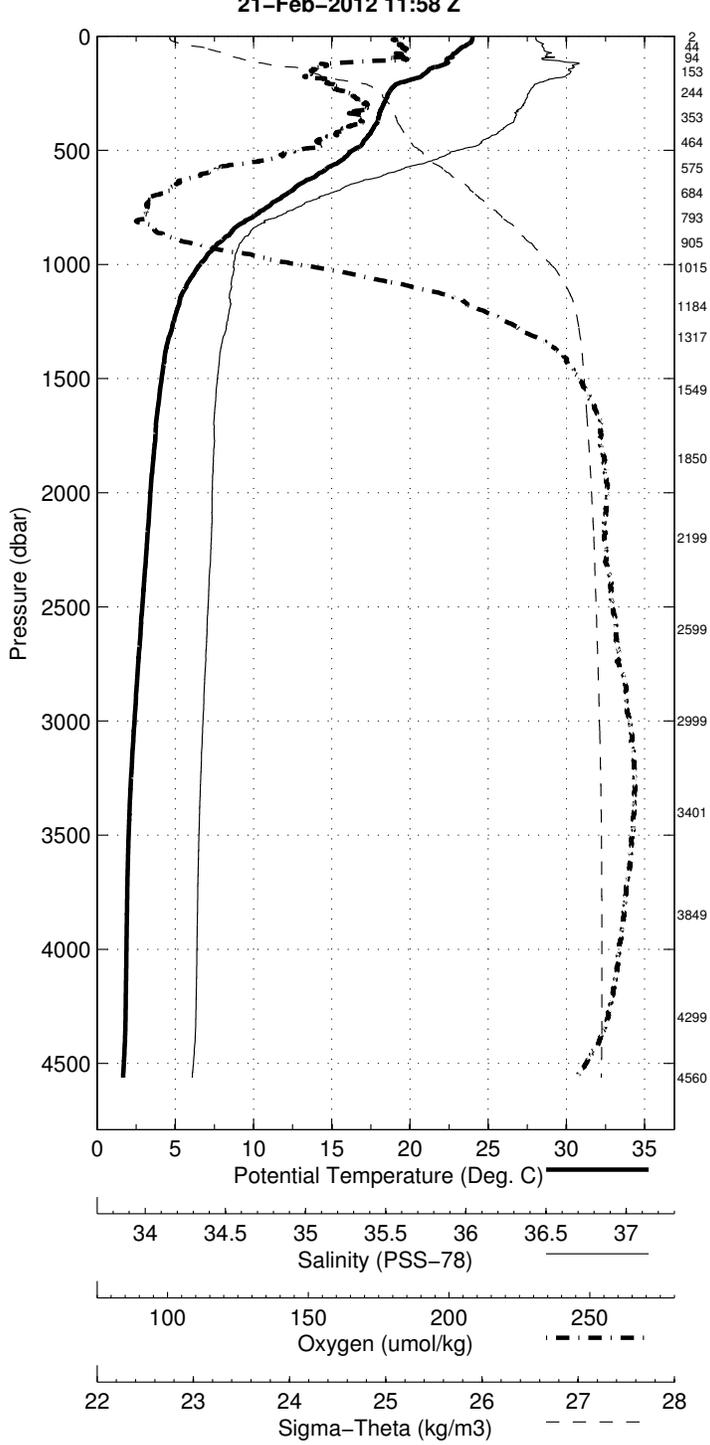


Abaco February - March 2012 R/V Brown  
 CTD Station 13 (CTD013)  
 Latitude 26.500N Longitude 74.518W  
 21-Feb-2012 11:58Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.986	23.986	36.671	209.7	0.003	24.911
10	23.998	23.996	36.670	208.2	0.030	24.908
20	23.970	23.965	36.676	208.0	0.061	24.921
30	23.849	23.843	36.700	209.1	0.091	24.975
50	23.302	23.291	36.710	209.0	0.149	25.146
75	22.857	22.842	36.738	208.0	0.218	25.298
100	22.401	22.381	36.707	211.0	0.285	25.407
125	22.180	22.155	36.876	190.0	0.347	25.600
150	21.201	21.172	36.842	186.6	0.405	25.849
200	19.684	19.647	36.708	189.5	0.509	26.159
250	18.688	18.643	36.633	196.1	0.599	26.361
300	18.341	18.288	36.602	200.9	0.685	26.427
400	17.743	17.674	36.504	195.8	0.854	26.505
500	16.408	16.326	36.256	183.8	1.017	26.639
600	14.268	14.179	35.892	159.4	1.166	26.839
700	11.978	11.884	35.544	145.7	1.296	27.034
800	9.820	9.725	35.277	143.6	1.408	27.215
900	7.990	7.895	35.123	153.4	1.501	27.386
1000	6.698	6.601	35.083	182.7	1.578	27.539
1100	5.776	5.676	35.070	212.5	1.642	27.649
1200	5.206	5.102	35.058	230.1	1.698	27.710
1300	4.807	4.697	35.035	241.5	1.750	27.738
1400	4.446	4.330	35.008	251.1	1.799	27.757
1500	4.245	4.122	34.995	255.3	1.848	27.770
1750	3.874	3.732	34.979	260.8	1.966	27.797
2000	3.563	3.402	34.967	262.7	2.080	27.821
2500	3.091	2.890	34.947	263.7	2.302	27.853
3000	2.635	2.392	34.920	268.0	2.516	27.875
3500	2.304	2.017	34.899	269.0	2.722	27.889
4000	2.215	1.875	34.888	265.5	2.929	27.892
4500	2.109	1.713	34.870	257.0	3.146	27.890

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4561	1	2.065	1.664	34.865	252.7
4300	2	2.193	1.819	34.882	261.5
3850	3	2.229	1.905	34.890	269.1
3401	4	2.339	2.061	34.903	265.9
3000	5	2.619	2.376	34.919	267.9
2599	6	2.983	2.774	34.941	264.3
2199	7	3.385	3.208	34.964	261.4
1850	8	3.724	3.575	34.975	261.3
1550	9	4.116	3.990	34.988	256.2
1317	10	4.599	4.489	35.019	247.7
1184	11	5.218	5.115	35.059	230.1
1015	13	6.566	6.468	35.080	188.1
906	14	7.996	7.900	35.124	153.3
794	15	9.957	9.862	35.295	141.6
685	16	12.284	12.191	35.592	147.3
575	17	14.974	14.885	36.010	162.9
464	18	17.139	17.061	36.392	202.5
354	19	18.079	18.017	36.559	198.3
244	20	18.944	18.900	36.649	194.2
154	21	21.378	21.348	36.853	187.1
94	22	22.808	22.789	36.755	208.0
45	23	23.540	23.530	36.709	215.5
3	24	24.127	24.127	36.648	210.3

Abaco February – March 2013 R/V Brown  
 CTD Station 13 (CTD013)  
 Latitude 26.500 N Longitude 74.518 W  
 21-Feb-2012 11:58 Z

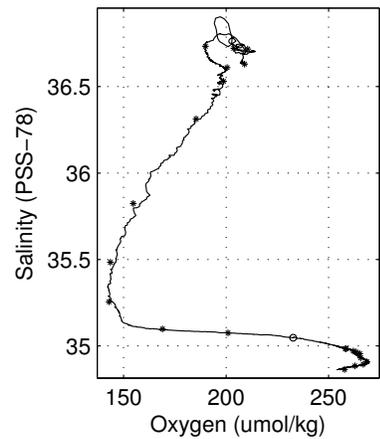
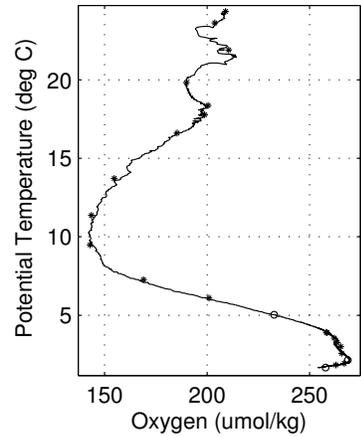
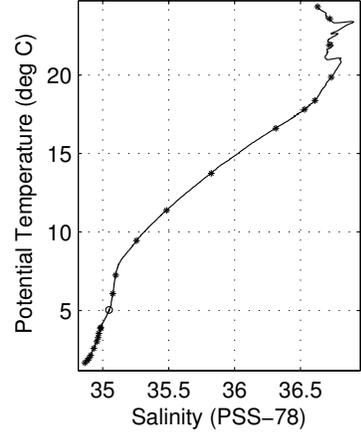
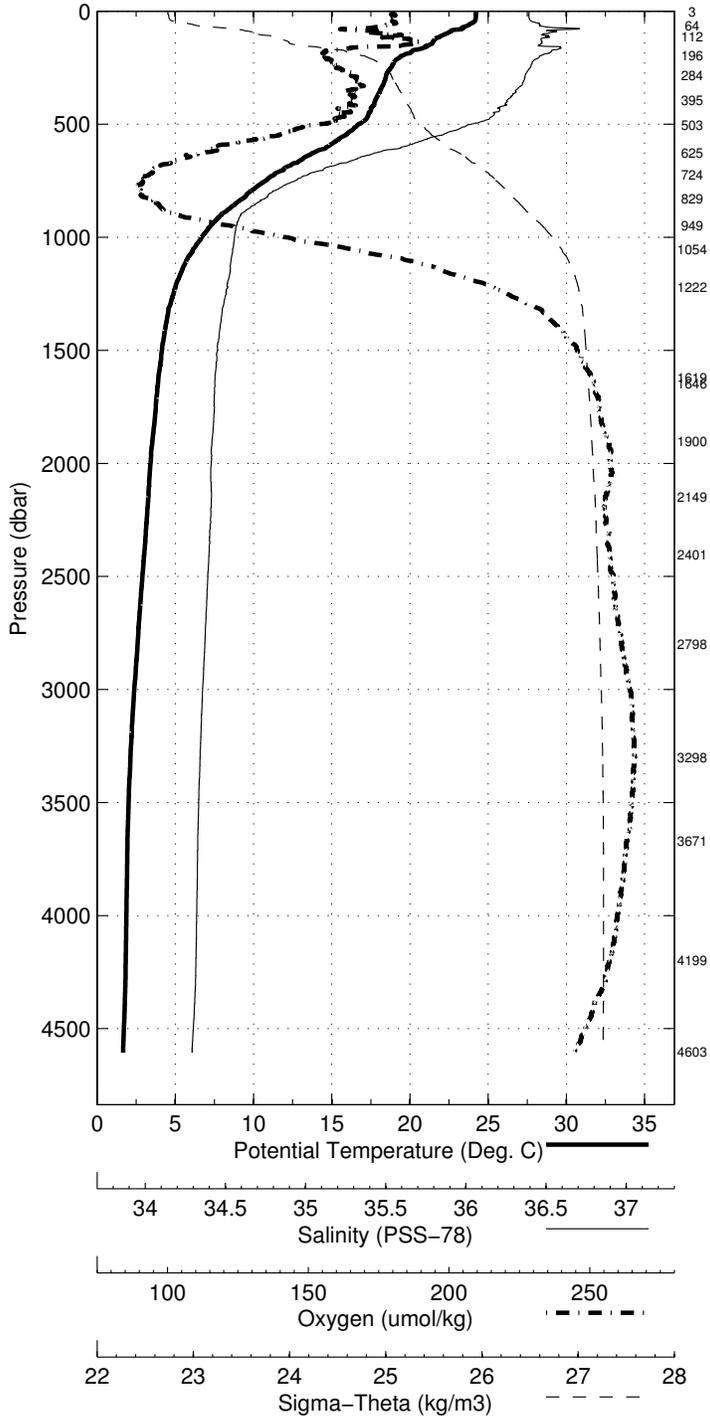


Abaco February - March 2012 R/V Brown  
 CTD Station 14 (CTD014)  
 Latitude 26.500N Longitude 74.801W  
 21-Feb-2012 16:44Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.237	24.237	36.640	207.3	0.003	24.813
10	24.233	24.231	36.638	206.9	0.031	24.813
20	24.217	24.213	36.637	208.1	0.063	24.818
30	24.214	24.208	36.639	207.6	0.094	24.821
50	24.060	24.049	36.671	208.3	0.156	24.893
75	23.409	23.393	36.864	201.1	0.230	25.234
100	22.302	22.282	36.714	204.7	0.296	25.441
125	21.616	21.591	36.701	212.3	0.357	25.626
150	21.247	21.218	36.688	210.3	0.417	25.720
200	19.448	19.412	36.693	190.3	0.519	26.209
250	18.825	18.780	36.643	193.4	0.610	26.334
300	18.480	18.427	36.614	198.7	0.697	26.402
400	17.837	17.768	36.524	195.8	0.868	26.498
500	16.806	16.722	36.332	188.8	1.033	26.603
600	14.796	14.704	35.974	162.9	1.186	26.789
700	12.014	11.920	35.554	146.2	1.317	27.035
800	9.837	9.742	35.287	142.7	1.428	27.220
900	8.023	7.927	35.119	152.6	1.523	27.378
1000	6.774	6.677	35.086	180.5	1.601	27.531
1100	5.829	5.729	35.069	210.8	1.667	27.642
1200	5.196	5.091	35.050	230.3	1.723	27.704
1300	4.773	4.663	35.029	242.6	1.775	27.737
1400	4.485	4.368	35.011	250.2	1.825	27.756
1500	4.272	4.149	34.997	254.8	1.874	27.768
1750	3.901	3.759	34.981	260.5	1.992	27.796
2000	3.577	3.416	34.964	263.4	2.108	27.817
2500	3.096	2.895	34.946	264.1	2.331	27.852
3000	2.620	2.377	34.919	268.4	2.545	27.876
3500	2.304	2.016	34.898	268.7	2.750	27.889
4000	2.211	1.871	34.888	265.1	2.958	27.892
4500	2.110	1.715	34.870	256.9	3.174	27.890

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4604	1	2.070	1.664	34.864	257.7
4199	2	2.193	1.831	34.885	262.8
3671	3	2.245	1.940	34.894	266.9
3299	4	2.412	2.144	34.909	268.6
2799	5	2.812	2.586	34.932	265.6
2401	6	3.203	3.009	34.955	265.2
2149	7	3.445	3.272	34.965	263.5
1901	8	3.699	3.545	34.971	262.0
1646	9	4.012	3.878	34.983	258.5
1620	10	4.046	3.914	34.985	258.1
1222	11	5.139	5.033	35.048	232.7
1054	13	6.172	6.073	35.076	200.9
949	14	7.349	7.253	35.098	169.0
829	15	9.544	9.447	35.256	142.9
724	16	11.473	11.379	35.483	143.6
626	17	13.830	13.739	35.823	154.7
503	18	16.692	16.608	36.312	185.4
395	19	17.878	17.809	36.531	198.7
284	20	18.423	18.373	36.609	200.5
197	21	19.887	19.851	36.733	189.9
113	22	21.924	21.901	36.717	210.5
65	23	23.602	23.588	36.721	203.8
3	24	24.358	24.357	36.629	208.9

Abaco February – March 2013 R/V Brown  
 CTD Station 14 (CTD014)  
 Latitude 26.500 N Longitude 74.801 W  
 21-Feb-2012 16:44 Z

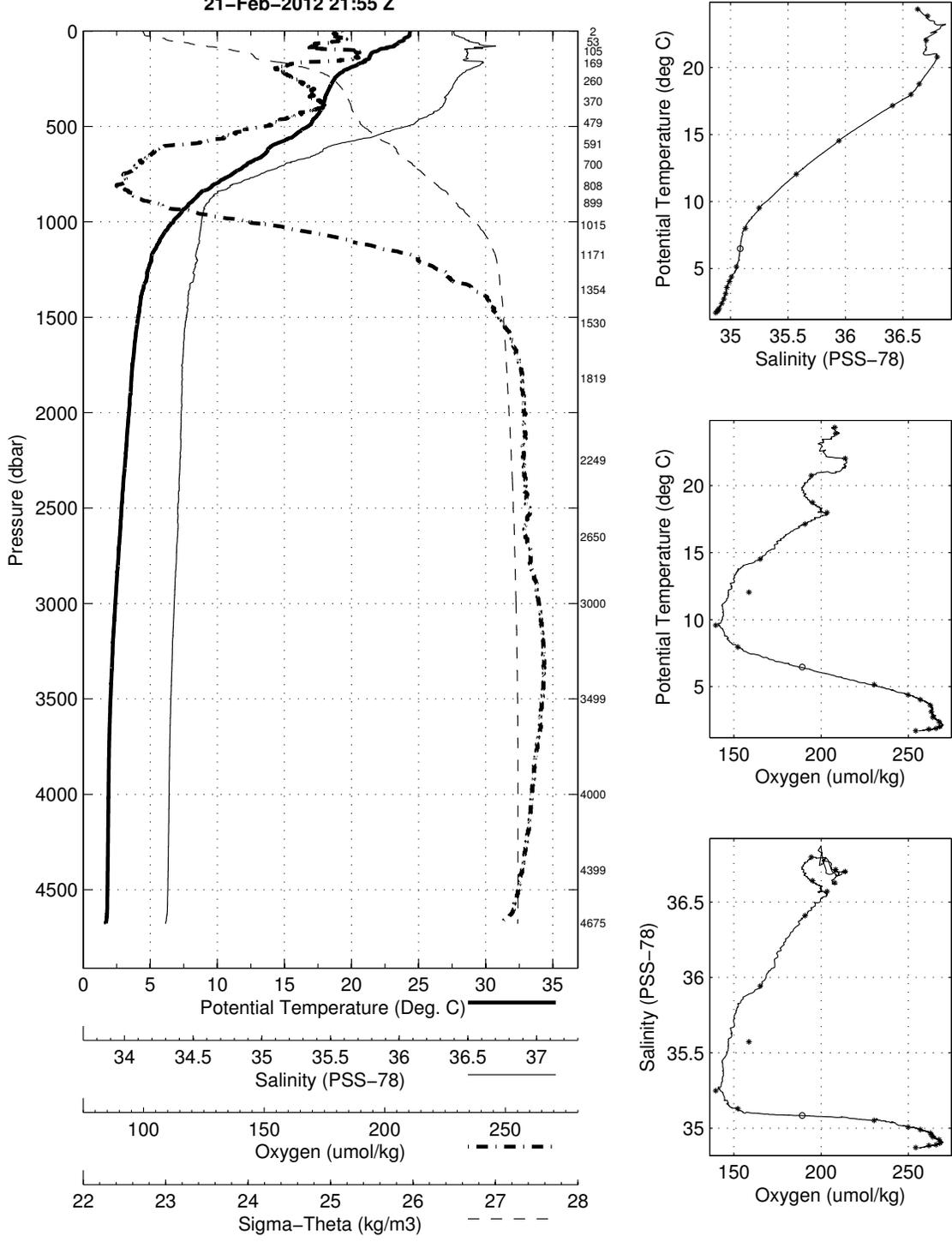


Abaco February - March 2012 R/V Brown  
 CTD Station 15 (CTD015)  
 Latitude 26.500N Longitude 75.083W  
 21-Feb-2012 21:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.369	24.369	36.621	209.0	0.003	24.759
10	24.350	24.348	36.620	207.3	0.032	24.764
20	24.342	24.337	36.623	206.8	0.064	24.770
30	24.231	24.225	36.650	207.1	0.095	24.824
50	23.890	23.879	36.711	208.4	0.156	24.973
75	23.198	23.182	36.796	200.9	0.227	25.243
100	22.050	22.030	36.700	212.4	0.293	25.501
125	21.435	21.411	36.701	214.1	0.353	25.676
150	21.128	21.099	36.680	211.0	0.412	25.746
200	19.717	19.680	36.719	189.1	0.516	26.158
250	18.774	18.729	36.639	194.3	0.608	26.344
300	18.395	18.342	36.609	199.5	0.695	26.419
400	17.899	17.830	36.545	202.9	0.864	26.498
500	16.835	16.751	36.332	185.2	1.029	26.597
600	14.185	14.096	35.878	156.8	1.180	26.845
700	12.287	12.192	35.591	147.0	1.312	27.012
800	9.977	9.881	35.293	142.8	1.426	27.201
900	8.079	7.983	35.124	152.1	1.521	27.374
1000	6.821	6.723	35.087	181.4	1.600	27.525
1100	5.797	5.697	35.074	211.7	1.664	27.650
1200	5.198	5.094	35.062	231.7	1.720	27.714
1300	4.829	4.719	35.038	241.2	1.771	27.738
1400	4.420	4.304	35.006	252.3	1.821	27.758
1500	4.214	4.091	34.994	256.0	1.869	27.772
1750	3.797	3.656	34.966	262.6	1.987	27.795
2000	3.567	3.406	34.963	263.7	2.102	27.817
2500	3.056	2.855	34.942	265.2	2.324	27.852
3000	2.640	2.397	34.921	267.9	2.537	27.876
3500	2.326	2.038	34.900	269.0	2.744	27.889
4000	2.228	1.888	34.890	265.8	2.952	27.892
4500	2.208	1.809	34.882	261.8	3.171	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4676	1	2.124	1.707	34.870	254.2
4399	2	2.215	1.828	34.885	261.7
4000	3	2.231	1.890	34.890	265.8
3500	4	2.323	2.035	34.901	268.0
3001	5	2.639	2.396	34.923	267.6
2650	6	2.941	2.728	34.941	263.9
2249	7	3.317	3.136	34.956	263.1
1820	8	3.737	3.590	34.967	262.5
1530	9	4.172	4.047	34.990	256.8
1354	10	4.497	4.385	35.007	249.8
1171	11	5.241	5.139	35.051	230.4
1015	13	6.579	6.481	35.084	189.1
900	14	8.091	7.995	35.129	152.3
809	15	9.614	9.519	35.249	139.6
700	16	12.138	12.043	35.573	158.7
591	17	14.623	14.534	35.943	165.1
480	18	17.233	17.152	36.410	190.8
370	19	18.049	17.984	36.570	203.3
260	20	18.813	18.767	36.642	195.1
170	21	20.822	20.789	36.799	194.3
106	22	22.054	22.033	36.702	213.7
54	23	23.857	23.846	36.716	208.2
3	24	24.348	24.348	36.629	207.7

Abaco February – March 2013 R/V Brown  
 CTD Station 15 (CTD015)  
 Latitude 26.500 Longitude 75.083 W  
 21-Feb-2012 21:55 Z

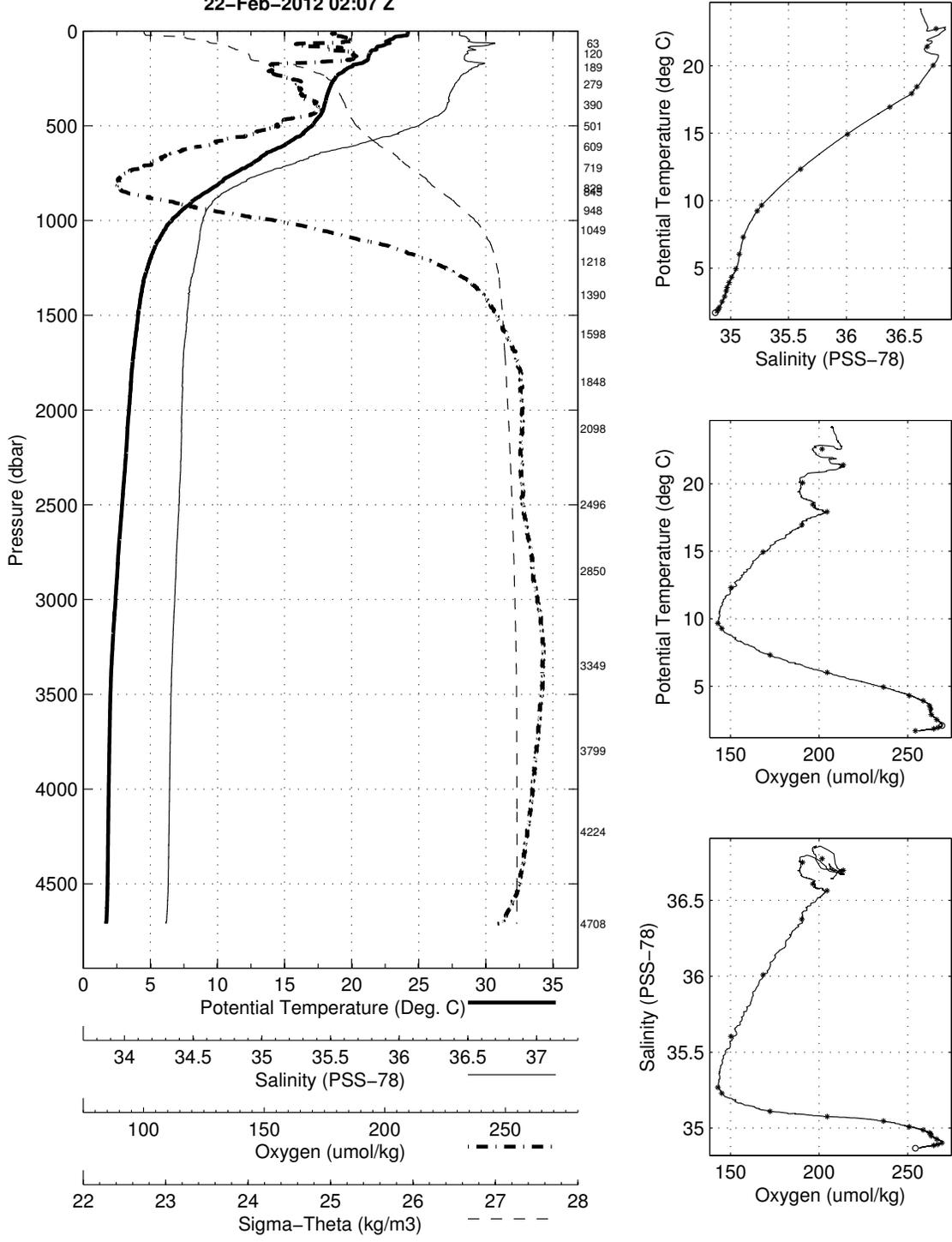


Abaco February - March 2012 R/V Brown  
 CTD Station 16 (CTD016)  
 Latitude 26.500N Longitude 75.300W  
 22-Feb-2012 02:07Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.195	24.195	36.645	207.5	0.003	24.829
10	24.196	24.194	36.644	206.9	0.031	24.829
20	24.161	24.157	36.643	207.7	0.062	24.839
30	23.304	23.298	36.678	209.9	0.092	25.120
50	22.771	22.761	36.702	212.4	0.147	25.294
75	22.414	22.399	36.810	196.9	0.212	25.480
100	21.714	21.694	36.738	205.9	0.274	25.625
125	21.322	21.297	36.679	213.2	0.333	25.691
150	21.258	21.229	36.673	211.9	0.392	25.705
200	19.677	19.640	36.716	189.2	0.496	26.167
250	18.820	18.776	36.643	194.3	0.588	26.336
300	18.421	18.368	36.603	197.1	0.675	26.408
400	18.013	17.943	36.565	202.7	0.846	26.486
500	17.134	17.049	36.394	190.4	1.013	26.573
600	15.147	15.054	36.028	170.9	1.169	26.753
700	12.677	12.580	35.638	152.8	1.306	26.972
800	10.283	10.185	35.329	143.9	1.423	27.177
900	8.204	8.107	35.150	159.3	1.520	27.376
1000	6.685	6.588	35.091	189.8	1.598	27.547
1100	5.763	5.664	35.071	214.6	1.661	27.652
1200	5.102	4.998	35.048	234.2	1.716	27.714
1300	4.654	4.545	35.022	245.8	1.768	27.745
1400	4.414	4.298	35.007	251.9	1.817	27.760
1500	4.210	4.088	34.996	255.8	1.865	27.774
1750	3.816	3.675	34.973	262.0	1.982	27.798
2000	3.575	3.414	34.965	263.2	2.096	27.818
2500	3.098	2.896	34.947	263.5	2.320	27.852
3000	2.651	2.408	34.921	267.7	2.534	27.875
3500	2.315	2.028	34.899	269.0	2.740	27.889
4000	2.247	1.906	34.891	266.3	2.949	27.892
4500	2.214	1.815	34.882	262.1	3.168	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4709	1	2.131	1.710	34.868	254.4
4225	2	2.228	1.862	34.886	264.7
3800	3	2.263	1.944	34.892	267.0
3349	4	2.381	2.108	34.903	269.4
2851	5	2.766	2.535	34.927	266.4
2496	6	3.117	2.915	34.948	263.3
2098	7	3.493	3.324	34.962	262.9
1849	8	3.727	3.578	34.969	262.2
1598	9	4.073	3.943	34.987	258.8
1391	10	4.458	4.343	35.009	250.9
1219	11	5.058	4.953	35.046	236.3
1049	13	6.141	6.044	35.075	204.5
948	14	7.401	7.304	35.110	172.3
845	15	9.344	9.246	35.230	145.0
830	16	9.756	9.658	35.268	142.8
720	17	12.432	12.334	35.605	150.3
610	18	15.017	14.922	36.010	168.4
501	19	17.025	16.941	36.375	190.3
390	20	18.000	17.933	36.564	204.4
280	21	18.492	18.442	36.609	196.4
189	22	20.052	20.017	36.750	190.6
120	23	21.433	21.409	36.698	213.6
63	24	22.754	22.741	36.774	201.6

Abaco February – March 2013 R/V Brown  
 CTD Station 16 (CTD016)  
 Latitude 26.500 N Longitude 75.300 W  
 22-Feb-2012 02:07 Z

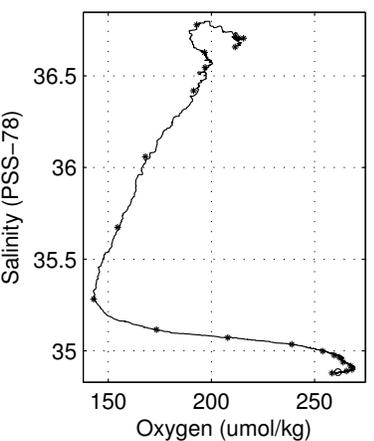
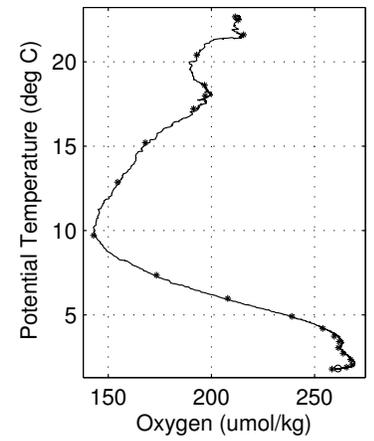
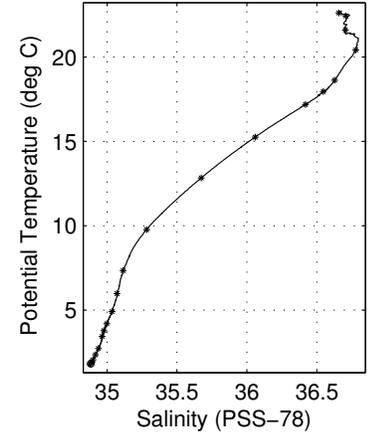
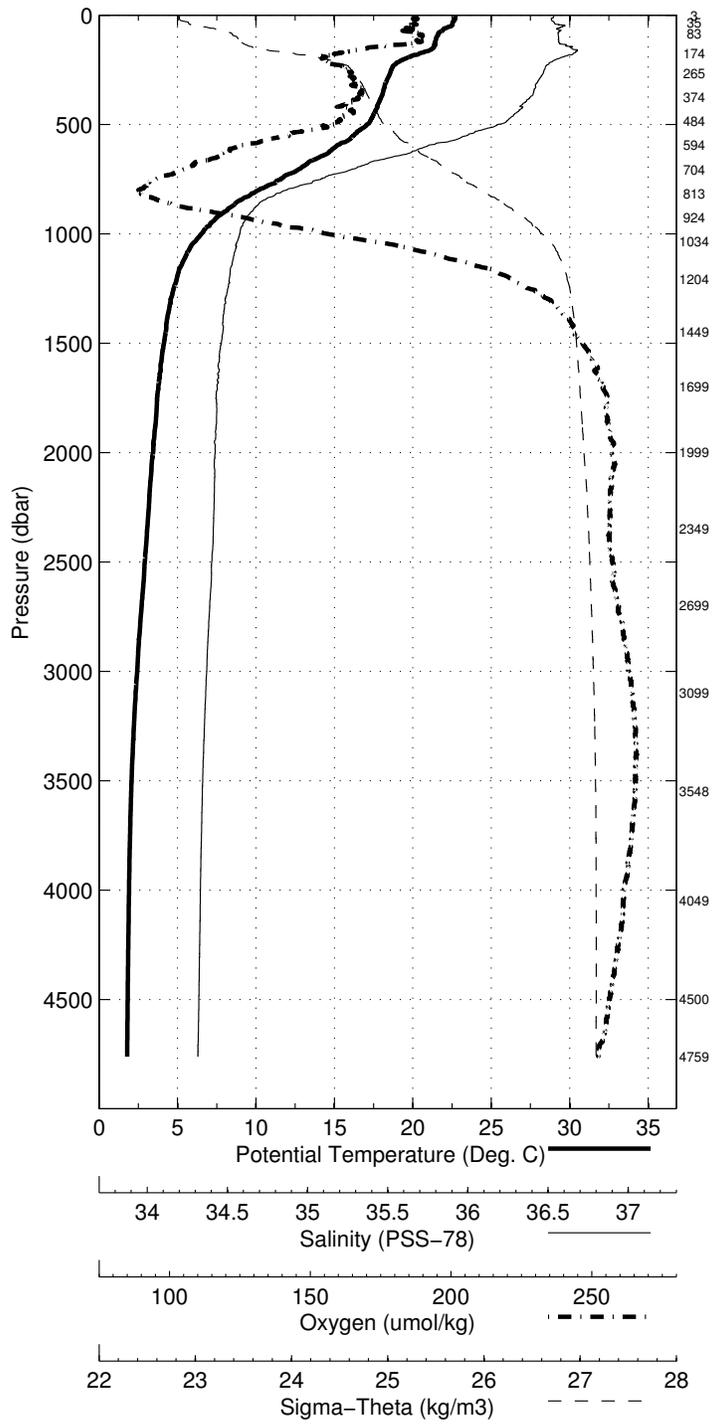


Abaco February - March 2012 R/V Brown  
 CTD Station 17 (CTD017)  
 Latitude 26.500N Longitude 75.501W  
 22-Feb-2012 06:41Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	22.721	22.721	36.680	213.3	0.003	25.289
10	22.715	22.713	36.676	213.0	0.027	25.289
20	22.687	22.683	36.667	213.2	0.054	25.291
30	22.561	22.554	36.678	213.8	0.080	25.336
50	22.472	22.462	36.734	212.5	0.133	25.404
75	21.791	21.776	36.702	211.9	0.195	25.575
100	21.532	21.512	36.703	214.0	0.255	25.649
125	21.447	21.423	36.707	214.4	0.314	25.678
150	21.314	21.284	36.764	201.1	0.372	25.759
200	19.515	19.478	36.696	190.1	0.476	26.194
250	18.660	18.616	36.630	196.2	0.566	26.366
300	18.378	18.326	36.600	198.4	0.652	26.416
400	17.904	17.835	36.531	196.7	0.822	26.487
500	17.148	17.064	36.394	191.8	0.989	26.570
600	15.206	15.112	36.036	168.3	1.146	26.746
700	12.966	12.867	35.678	155.5	1.286	26.945
800	10.259	10.162	35.324	142.8	1.405	27.177
900	8.040	7.944	35.145	161.7	1.500	27.396
1000	6.622	6.525	35.089	190.9	1.576	27.554
1100	5.620	5.522	35.059	219.5	1.639	27.659
1200	5.066	4.963	35.038	237.2	1.694	27.710
1300	4.677	4.568	35.017	247.3	1.745	27.738
1400	4.429	4.314	35.005	252.7	1.795	27.756
1500	4.256	4.133	34.996	255.7	1.843	27.769
1750	3.833	3.692	34.970	262.1	1.962	27.794
2000	3.605	3.443	34.966	263.0	2.077	27.815
2500	3.114	2.912	34.948	263.5	2.301	27.852
3000	2.671	2.428	34.922	267.4	2.516	27.874
3500	2.361	2.073	34.902	269.2	2.724	27.888
4000	2.248	1.907	34.891	266.2	2.934	27.891
4500	2.223	1.824	34.883	262.5	3.153	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4759	1	2.217	1.787	34.878	258.5
4500	2	2.221	1.822	34.883	261.3
4049	3	2.242	1.896	34.889	265.5
3549	4	2.342	2.048	34.899	268.2
3100	5	2.604	2.352	34.917	267.5
2699	6	2.944	2.725	34.938	263.9
2349	7	3.250	6.819	-999.000	-999.0
1999	8	3.592	3.431	34.964	262.0
1700	9	3.909	3.772	34.976	259.5
1450	10	4.317	4.198	34.998	254.0
1205	11	5.014	4.911	35.035	239.0
1035	13	6.064	5.968	35.071	207.9
925	14	7.427	7.332	35.115	173.4
814	15	9.859	9.762	35.282	142.9
705	16	12.927	12.828	35.674	154.5
595	17	15.345	15.251	36.059	168.0
484	18	17.266	17.184	36.419	191.4
375	19	18.020	17.955	36.547	197.0
265	20	18.667	18.619	36.629	196.7
175	21	20.448	20.414	36.779	192.9
83	22	21.611	21.595	36.706	215.6
35	23	22.438	22.431	36.708	213.0
3	24	22.610	22.610	36.659	211.6

Abaco February – March 2013 R/V Brown  
 CTD Station 17 (CTD017)  
 Latitude 26.500 N Longitude 75.501 W  
 22-Feb-2012 06:41 Z

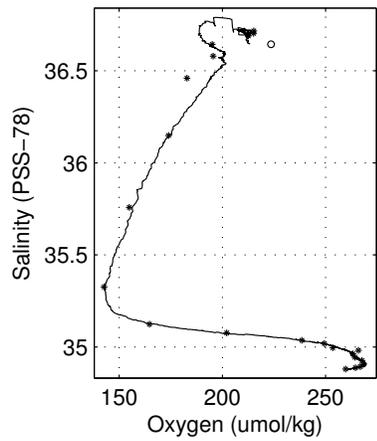
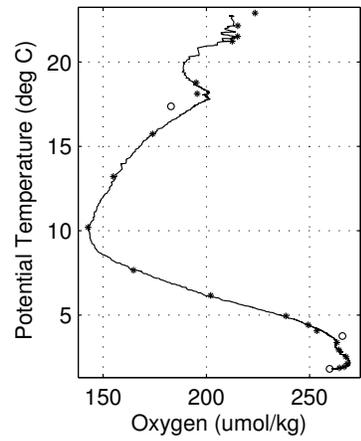
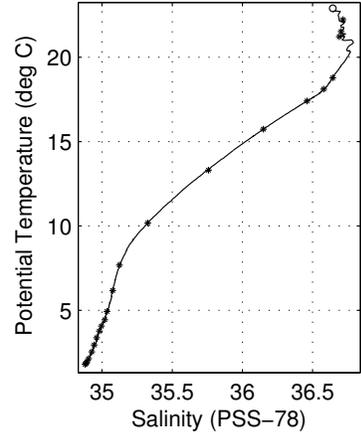
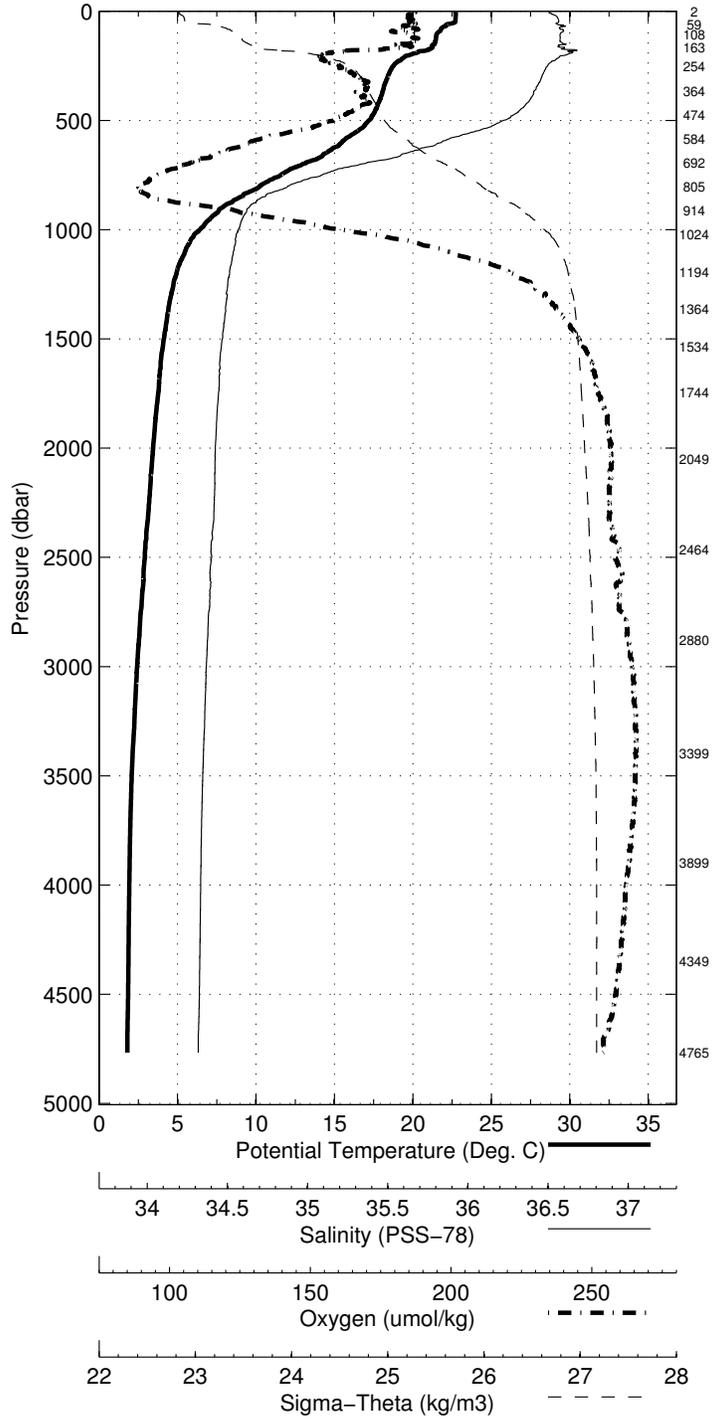


Abaco February - March 2012 R/V Brown  
 CTD Station 18 (CTD018)  
 Latitude 26.500N Longitude 75.706W  
 22-Feb-2012 11:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	22.718	22.718	36.649	213.2	0.003	25.266
10	22.730	22.728	36.655	212.3	0.027	25.268
20	22.728	22.724	36.682	211.8	0.054	25.290
30	22.724	22.717	36.692	211.5	0.081	25.299
50	22.709	22.699	36.697	211.9	0.134	25.308
75	21.871	21.856	36.700	211.6	0.198	25.551
100	21.569	21.550	36.707	211.4	0.258	25.642
125	21.491	21.467	36.704	213.8	0.318	25.663
150	21.426	21.397	36.732	208.6	0.377	25.704
200	19.844	19.807	36.733	188.8	0.486	26.136
250	18.812	18.767	36.641	194.0	0.578	26.336
300	18.451	18.398	36.612	199.0	0.665	26.407
400	17.997	17.928	36.557	200.7	0.836	26.483
500	17.269	17.185	36.418	192.5	1.003	26.558
600	15.582	15.487	36.106	171.6	1.162	26.716
700	13.067	12.968	35.700	155.2	1.305	26.942
800	10.336	10.238	35.333	143.1	1.424	27.171
900	7.928	7.833	35.134	162.4	1.521	27.404
1000	6.508	6.413	35.082	194.3	1.596	27.563
1100	5.578	5.480	35.057	221.6	1.657	27.663
1200	5.042	4.939	35.038	237.9	1.711	27.712
1300	4.698	4.589	35.026	246.4	1.762	27.743
1400	4.455	4.339	35.014	250.9	1.812	27.761
1500	4.254	4.131	35.002	254.7	1.860	27.774
1750	3.905	3.763	34.982	259.8	1.977	27.796
2000	3.606	3.445	34.966	263.0	2.093	27.816
2500	3.124	2.921	34.947	264.1	2.317	27.850
3000	2.667	2.423	34.920	268.3	2.533	27.873
3500	2.367	2.078	34.902	269.2	2.743	27.887
4000	2.267	1.925	34.892	266.8	2.954	27.891
4500	2.249	1.850	34.886	264.1	3.174	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4766	1	2.232	1.801	34.880	259.8
4349	2	2.252	1.870	34.887	264.5
3900	3	2.271	1.941	34.893	266.8
3399	4	2.406	2.126	34.905	268.3
2880	5	2.766	2.533	34.927	267.7
2465	6	3.145	2.946	34.944	264.3
2050	7	3.537	3.372	34.962	263.3
1744	8	3.911	3.770	34.981	266.0
1535	9	4.192	4.067	34.996	253.6
1364	10	4.547	4.433	35.019	249.4
1194	11	5.038	4.936	35.036	238.5
1024	13	6.273	6.176	35.077	202.1
914	14	7.773	7.677	35.124	164.7
805	15	10.274	10.176	35.326	142.7
693	16	13.411	13.312	35.758	154.9
585	17	15.827	15.733	36.149	174.0
474	18	17.481	17.400	36.460	182.9
364	19	18.174	18.110	36.579	195.6
254	20	18.826	18.780	36.643	195.1
164	21	21.250	21.218	36.689	212.5
109	22	21.548	21.527	36.704	215.2
60	23	22.245	22.233	36.716	215.2
3	24	22.904	22.903	36.644	223.6

Abaco February – March 2013 R/V Brown  
 CTD Station 18 (CTD018)  
 Latitude 26.500 N Longitude 75.706 W  
 22-Feb-2012 11:36 Z

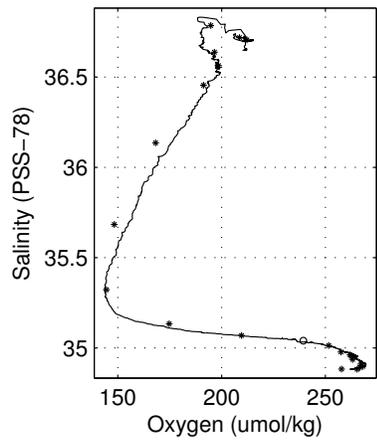
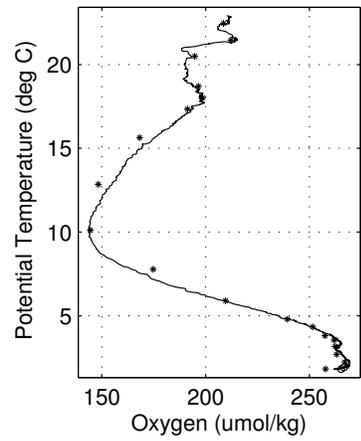
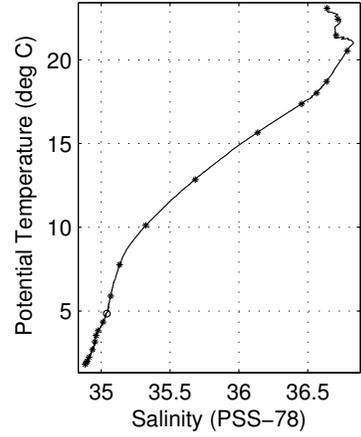
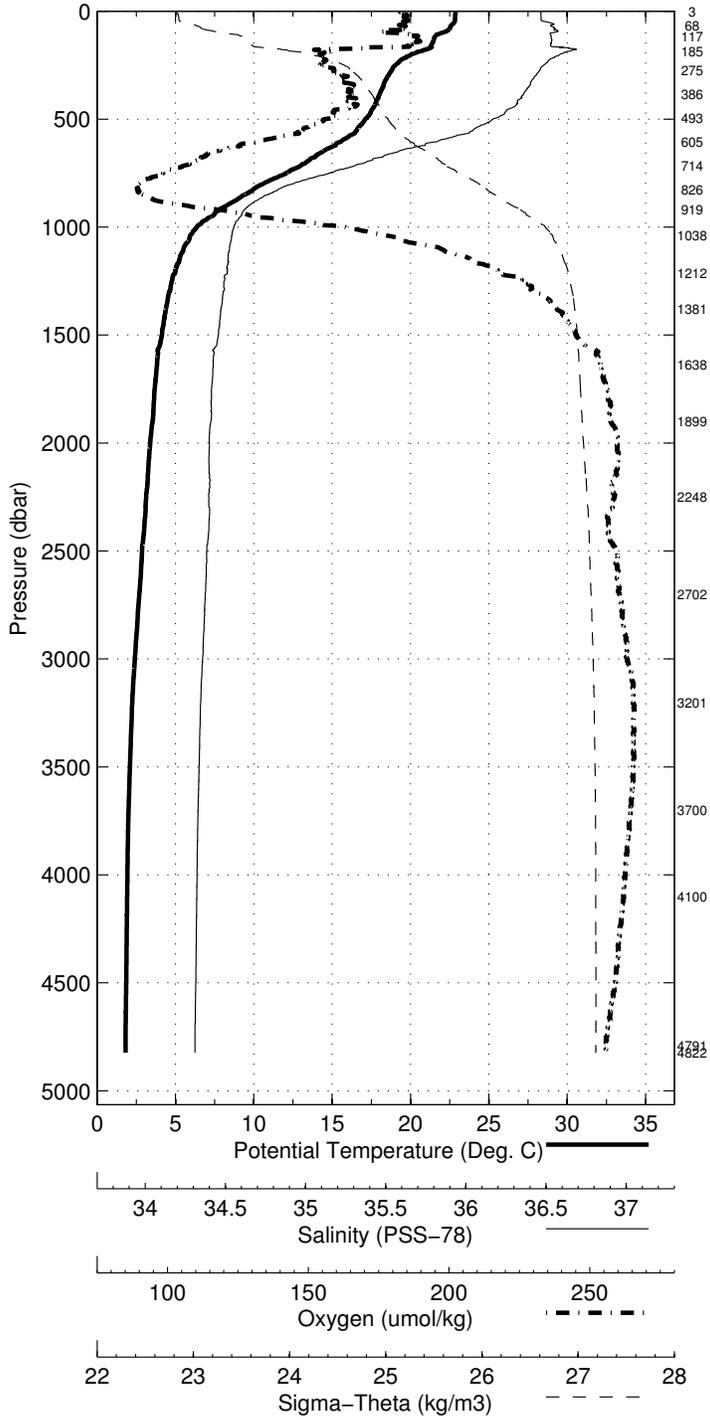


Abaco February - March 2012 R/V Brown  
 CTD Station 19 (CTD019)  
 Latitude 26.503N Longitude 75.901W  
 22-Feb-2012 15:53Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	22.909	22.909	36.651	210.2	0.003	25.213
10	22.869	22.867	36.650	211.3	0.027	25.224
20	22.851	22.847	36.651	211.9	0.055	25.231
30	22.846	22.840	36.651	211.0	0.082	25.233
50	22.813	22.803	36.682	211.5	0.137	25.267
75	22.556	22.540	36.718	211.2	0.203	25.370
100	22.031	22.011	36.705	208.1	0.268	25.511
125	21.533	21.509	36.704	215.0	0.328	25.651
150	21.404	21.374	36.704	213.9	0.388	25.688
200	20.081	20.044	36.747	189.9	0.498	26.084
250	19.067	19.022	36.665	190.8	0.593	26.289
300	18.605	18.552	36.621	196.3	0.682	26.376
400	18.020	17.951	36.554	197.5	0.855	26.475
500	17.193	17.109	36.405	191.0	1.022	26.567
600	15.718	15.623	36.128	175.3	1.182	26.702
700	13.444	13.343	35.754	157.4	1.326	26.908
800	10.694	10.594	35.382	144.2	1.449	27.146
900	8.356	8.258	35.158	156.1	1.549	27.359
1000	6.462	6.367	35.081	196.4	1.626	27.569
1100	5.615	5.517	35.059	220.4	1.688	27.660
1200	5.110	5.006	35.049	234.9	1.743	27.714
1300	4.715	4.606	35.028	244.5	1.794	27.742
1400	4.454	4.338	35.013	251.1	1.843	27.761
1500	4.259	4.136	35.002	254.9	1.891	27.773
1750	3.812	3.671	34.967	262.7	2.009	27.794
2000	3.548	3.387	34.955	265.1	2.125	27.813
2500	3.072	2.871	34.943	265.0	2.348	27.851
3000	2.654	2.410	34.921	267.6	2.563	27.875
3500	2.384	2.094	34.903	269.0	2.771	27.887
4000	2.278	1.936	34.893	267.1	2.983	27.891
4500	2.258	1.858	34.886	264.7	3.204	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4822	1	2.258	1.819	34.883	257.8
4791	2	2.254	1.819	34.882	265.2
4101	3	2.274	1.920	34.892	266.6
3701	4	2.319	2.009	34.898	268.1
3201	5	2.507	2.247	34.911	267.0
2703	6	2.920	2.701	34.937	263.1
2249	7	3.348	3.166	34.954	262.4
1899	8	3.690	3.537	34.962	261.9
1639	9	3.960	3.827	34.977	257.5
1381	10	4.454	4.340	35.013	251.6
1213	11	4.942	4.838	35.040	239.3
1039	13	5.991	5.895	35.068	209.6
919	14	7.865	7.768	35.133	174.8
826	15	10.214	10.114	35.323	144.5
714	16	12.947	12.846	35.684	148.2
605	17	15.745	15.649	36.135	168.2
493	18	17.441	17.357	36.455	191.2
386	19	18.084	18.016	36.565	198.5
276	20	18.754	18.705	36.638	196.5
186	21	20.561	20.526	36.786	194.7
117	22	21.475	21.452	36.707	212.2
69	23	22.432	22.418	36.719	208.6
3	24	23.070	23.070	36.640	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 19 (CTD019)  
 Latitude 26.503 N Longitude 75.901 W  
 22-Feb-2012 15:53 Z

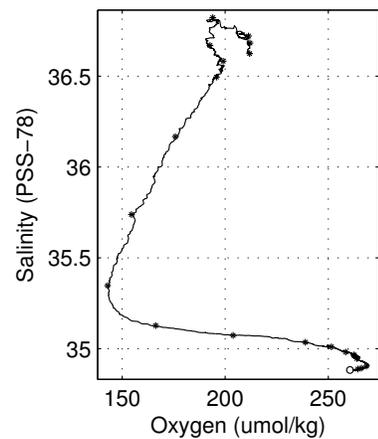
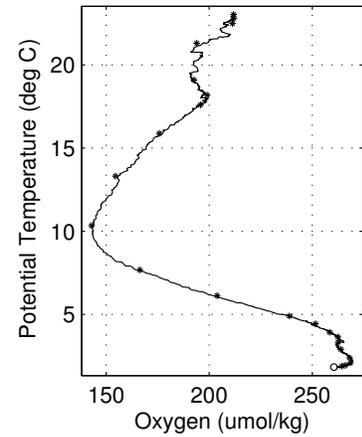
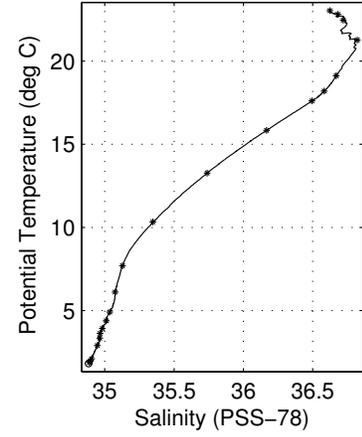
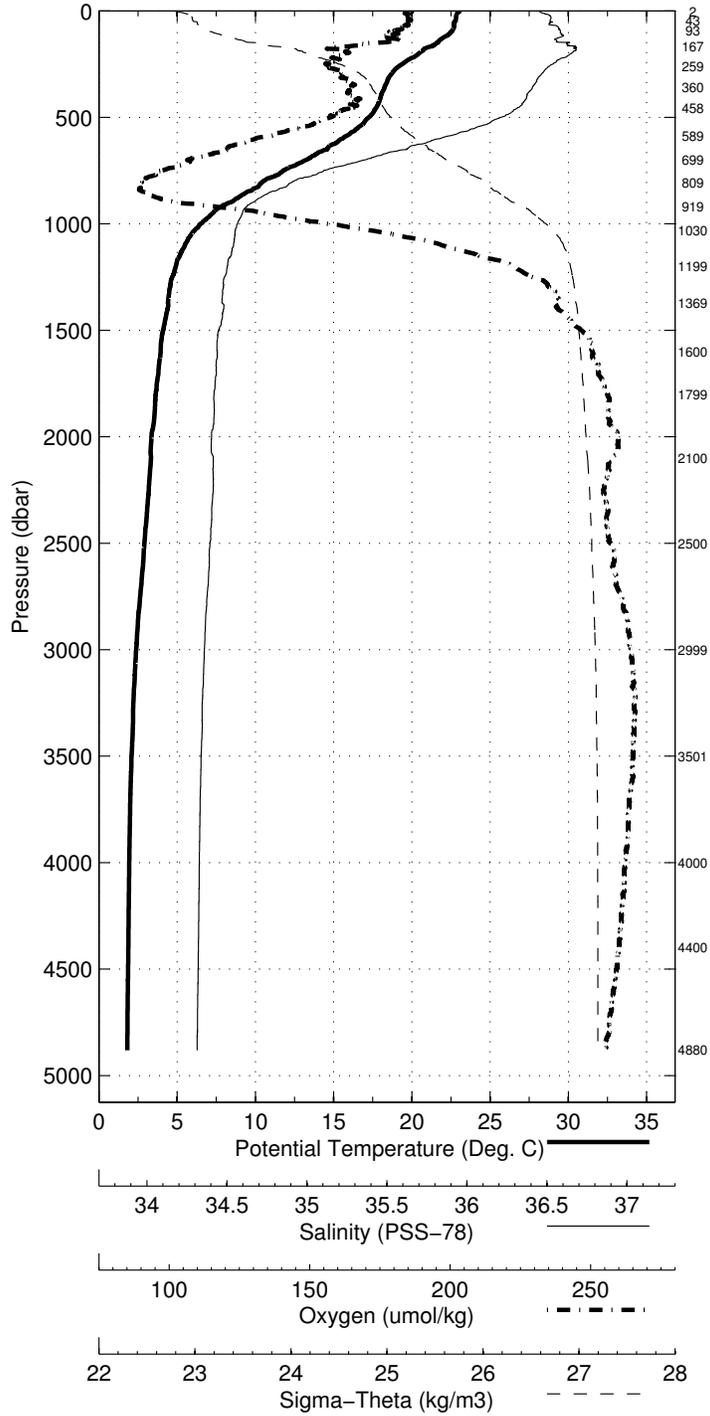


Abaco February - March 2012 R/V Brown  
 CTD Station 20 (CTD020)  
 Latitude 26.501N Longitude 76.087W  
 22-Feb-2012 21:20Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.037	23.037	36.627	212.6	0.003	25.158
10	22.902	22.900	36.639	211.3	0.028	25.206
20	22.854	22.850	36.674	211.6	0.055	25.248
30	22.831	22.825	36.683	211.5	0.082	25.261
50	22.777	22.767	36.678	211.7	0.137	25.274
75	22.714	22.698	36.718	210.4	0.204	25.325
100	22.510	22.490	36.731	207.2	0.270	25.394
125	22.048	22.023	36.727	206.1	0.334	25.524
150	21.603	21.573	36.762	204.1	0.395	25.678
200	20.493	20.455	36.786	195.5	0.505	26.003
250	19.436	19.390	36.692	191.0	0.604	26.214
300	18.720	18.667	36.632	195.2	0.695	26.355
400	18.088	18.018	36.561	197.9	0.869	26.463
500	17.323	17.238	36.427	192.0	1.038	26.553
600	15.663	15.568	36.118	173.0	1.198	26.707
700	13.341	13.240	35.734	155.5	1.342	26.913
800	10.617	10.517	35.374	143.8	1.464	27.154
900	8.445	8.346	35.164	153.3	1.565	27.350
1000	6.596	6.499	35.087	191.1	1.642	27.556
1100	5.599	5.500	35.067	220.2	1.704	27.669
1200	5.010	4.908	35.036	238.2	1.758	27.714
1300	4.649	4.540	35.016	247.8	1.809	27.741
1400	4.514	4.397	35.018	249.9	1.859	27.758
1500	4.236	4.113	34.993	255.8	1.907	27.769
1750	3.844	3.703	34.973	261.6	2.025	27.796
2000	3.523	3.363	34.955	265.0	2.141	27.815
2500	3.106	2.904	34.947	263.4	2.364	27.852
3000	2.624	2.382	34.919	268.5	2.579	27.875
3500	2.374	2.084	34.902	268.9	2.787	27.887
4000	2.280	1.938	34.893	267.0	2.998	27.891
4500	2.266	1.866	34.887	264.8	3.220	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4880	1	2.265	1.819	34.883	260.6
4400	2	2.269	1.881	34.888	264.4
4001	3	2.280	1.937	34.893	266.1
3501	4	2.380	2.090	34.904	268.5
3000	5	2.634	7.100	-999.000	-999.0
2500	6	3.091	2.889	34.947	263.8
2100	7	3.505	3.336	34.964	262.6
1800	8	3.772	3.627	34.966	262.4
1601	9	4.047	3.917	34.982	258.5
1370	10	4.495	4.381	35.011	251.5
1199	11	5.007	4.904	35.036	238.9
1030	13	6.210	6.114	35.074	203.8
919	14	7.785	7.688	35.127	166.3
809	15	10.428	10.329	35.347	142.9
699	16	13.371	13.271	35.738	154.5
589	17	15.939	15.844	36.167	175.8
458	18	17.683	17.604	36.495	195.8
361	19	18.260	18.197	36.583	199.0
259	20	19.167	19.120	36.669	192.6
167	21	21.305	21.272	36.821	193.9
94	22	22.495	22.476	36.720	211.3
44	23	22.833	22.824	36.682	212.0
3	24	23.039	23.038	36.624	211.9

Abaco February – March 2013 R/V Brown  
 CTD Station 20 (CTD020)  
 Latitude 26.501 N Longitude 76.087 W  
 22-Feb-2012 21:20 Z

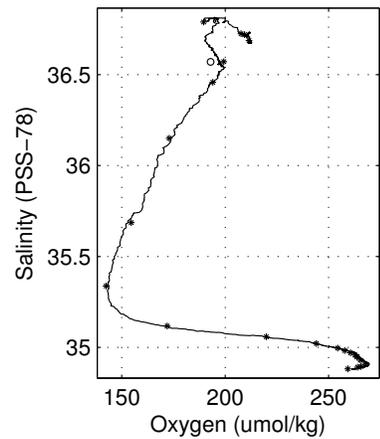
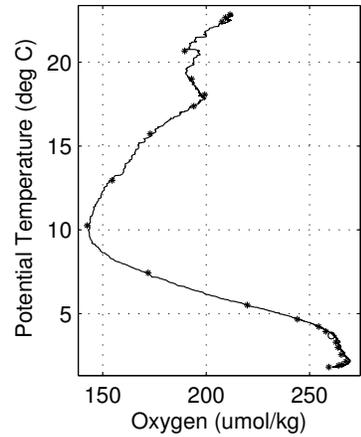
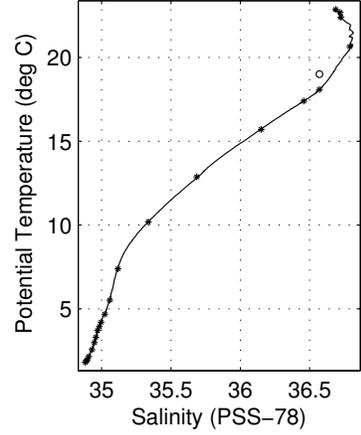
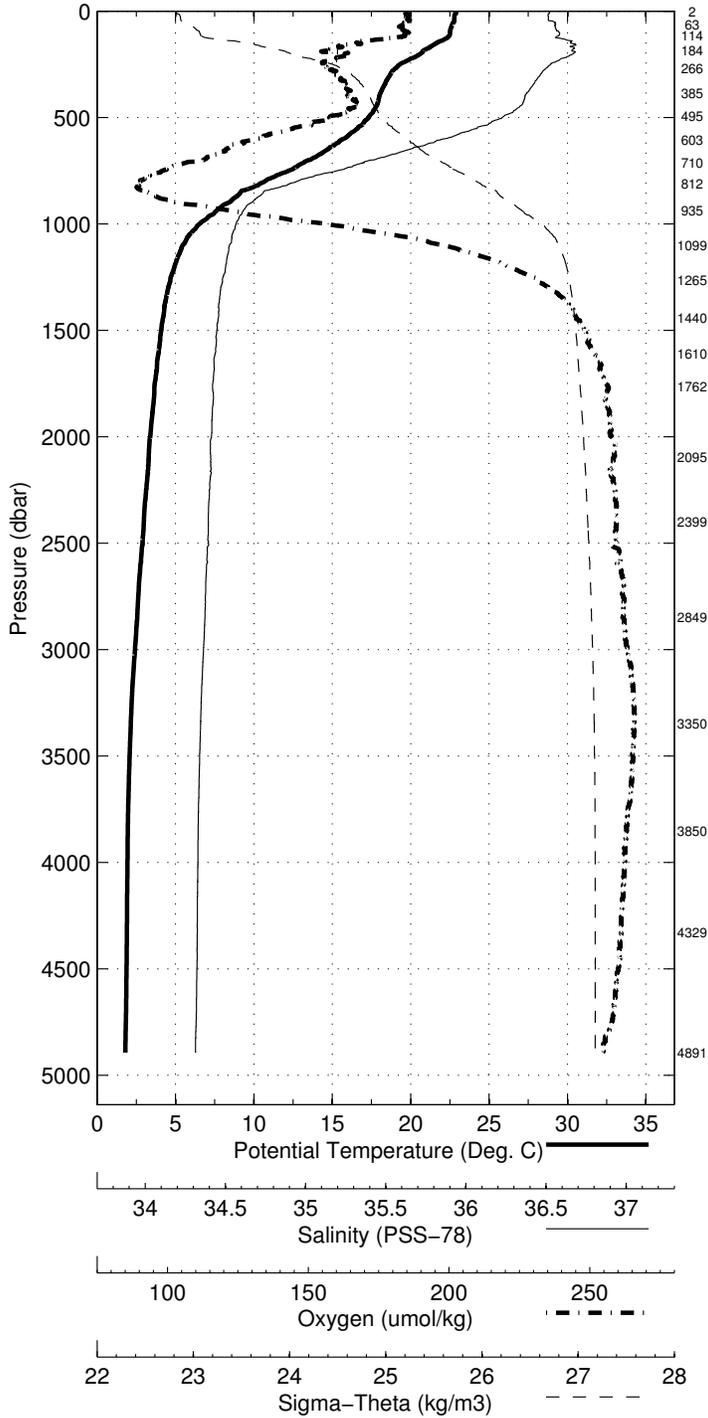


Abaco February - March 2012 R/V Brown  
 CTD Station 21 (CTD021)  
 Latitude 26.500N Longitude 76.218W  
 23-Feb-2012 01:29Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	22.896	22.896	36.682	211.5	0.003	25.240
10	22.891	22.889	36.680	211.3	0.027	25.241
20	22.804	22.799	36.674	212.5	0.054	25.262
30	22.793	22.786	36.675	212.5	0.081	25.267
50	22.779	22.769	36.704	211.7	0.136	25.294
75	22.605	22.590	36.712	210.2	0.202	25.351
100	22.529	22.509	36.730	212.1	0.268	25.388
125	22.354	22.329	36.717	208.5	0.333	25.430
150	21.674	21.644	36.790	199.6	0.395	25.678
200	20.662	20.624	36.802	196.0	0.506	25.969
250	19.358	19.312	36.687	190.1	0.606	26.230
300	18.737	18.683	36.634	193.4	0.697	26.352
400	18.066	17.996	36.556	196.5	0.870	26.466
500	17.397	17.312	36.440	191.9	1.039	26.545
600	15.806	15.710	36.146	173.7	1.200	26.697
700	13.556	13.455	35.768	160.1	1.346	26.895
800	10.780	10.679	35.395	144.1	1.470	27.142
900	8.456	8.357	35.163	153.3	1.569	27.347
1000	6.630	6.534	35.087	191.1	1.648	27.551
1100	5.545	5.447	35.053	220.9	1.711	27.664
1200	5.039	4.936	35.034	237.4	1.765	27.710
1300	4.635	4.527	35.009	247.9	1.817	27.736
1400	4.396	4.280	35.000	253.9	1.866	27.756
1500	4.215	4.093	34.990	256.7	1.915	27.768
1750	3.815	3.674	34.969	262.1	2.033	27.795
2000	3.553	3.392	34.962	263.6	2.148	27.818
2500	3.099	2.897	34.946	264.0	2.371	27.852
3000	2.661	2.417	34.922	267.6	2.585	27.875
3500	2.362	2.073	34.902	269.0	2.793	27.887
4000	2.281	1.939	34.893	266.9	3.004	27.891
4500	2.276	1.876	34.888	265.2	3.226	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4892	1	2.253	1.805	34.882	259.3
4330	2	2.282	1.902	34.891	264.0
3850	3	2.280	1.954	34.895	265.7
3350	4	2.425	2.151	34.907	267.6
2850	5	2.787	2.556	34.930	265.3
2399	6	3.170	2.977	34.948	263.7
2096	7	3.471	3.302	34.958	262.7
1762	8	3.846	3.704	34.971	260.5
1610	9	4.062	3.931	34.983	257.7
1440	10	4.321	4.202	34.996	254.4
1266	11	4.779	4.672	35.022	244.0
1100	13	5.616	5.518	35.059	219.8
935	14	7.487	7.391	35.118	171.9
813	15	10.282	10.183	35.337	142.4
710	16	12.979	12.879	35.686	154.6
604	17	15.807	15.710	36.151	172.9
495	18	17.485	17.401	36.459	194.0
385	19	18.155	18.087	36.571	199.3
267	20	19.058	19.009	36.571	192.9
184	21	20.691	20.656	36.790	189.6
115	22	22.433	22.410	36.726	207.6
64	23	22.705	22.692	36.720	209.4
3	24	22.870	22.870	36.688	211.4

Abaco February – March 2013 R/V Brown  
 CTD Station 21 (CTD021)  
 Latitude 26.500 N Longitude 76.218 W  
 23-Feb-2012 01:29 Z

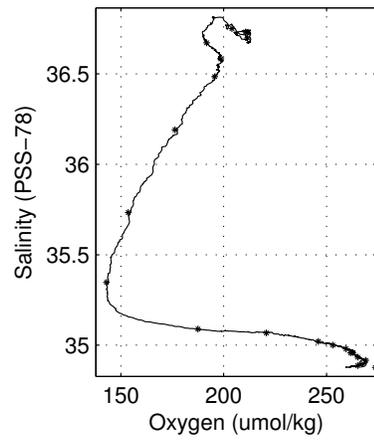
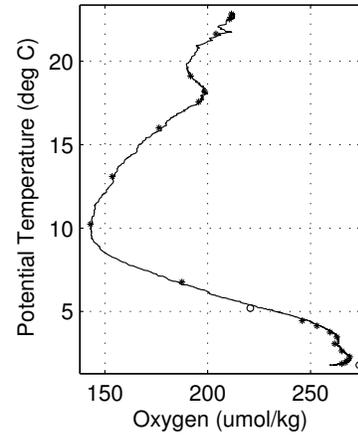
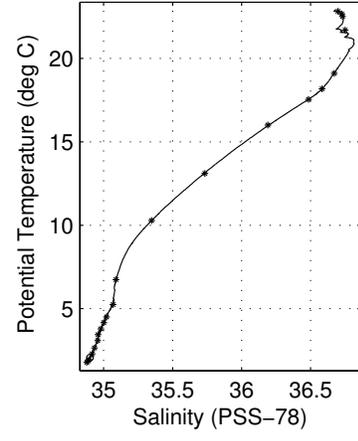
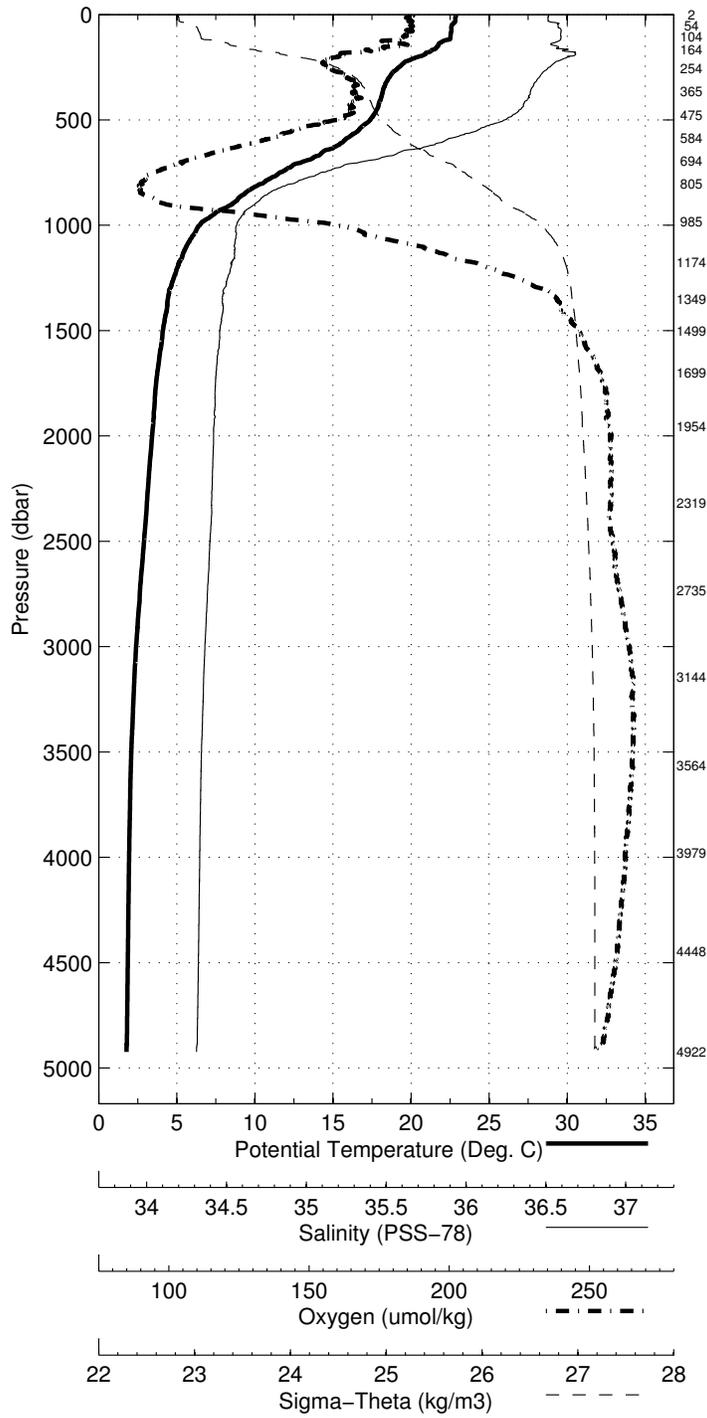


Abaco February - March 2012 R/V Brown  
 CTD Station 22 (CTD022)  
 Latitude 26.501N Longitude 76.347W  
 23-Feb-2012 06:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	22.849	22.849	36.677	212.9	0.003	25.250
10	22.859	22.857	36.674	211.9	0.027	25.246
20	22.837	22.833	36.673	212.0	0.054	25.251
30	22.842	22.836	36.675	212.6	0.082	25.252
50	22.622	22.611	36.724	212.5	0.135	25.354
75	22.602	22.586	36.741	211.4	0.201	25.374
100	22.550	22.529	36.738	211.2	0.266	25.388
125	22.093	22.068	36.729	204.9	0.331	25.513
150	21.705	21.676	36.719	207.9	0.393	25.616
200	20.510	20.472	36.783	193.8	0.506	25.996
250	19.241	19.195	36.677	191.2	0.604	26.253
300	18.636	18.582	36.626	196.3	0.694	26.371
400	18.132	18.062	36.571	198.9	0.867	26.461
500	17.456	17.370	36.450	193.8	1.036	26.538
600	15.789	15.693	36.144	174.1	1.197	26.698
700	13.117	13.018	35.715	153.7	1.341	26.943
800	10.643	10.543	35.380	143.6	1.460	27.154
900	8.642	8.543	35.176	149.9	1.560	27.329
1000	6.559	6.463	35.082	193.3	1.638	27.557
1100	5.712	5.612	35.070	214.9	1.701	27.657
1200	5.131	5.027	35.052	232.0	1.756	27.713
1300	4.665	4.557	35.018	245.8	1.808	27.740
1400	4.478	4.362	35.013	250.5	1.857	27.758
1500	4.228	4.105	34.996	255.4	1.905	27.772
1750	3.813	3.672	34.973	261.7	2.023	27.799
2000	3.580	3.419	34.964	263.6	2.137	27.817
2500	3.109	2.907	34.947	263.8	2.361	27.851
3000	2.637	2.394	34.920	268.2	2.575	27.875
3500	2.374	2.084	34.902	269.1	2.784	27.887
4000	2.289	1.947	34.894	267.2	2.995	27.891
4500	2.263	1.863	34.887	264.5	3.217	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4922	1	2.230	1.779	34.877	273.7
4448	2	2.263	1.869	34.887	265.2
3980	3	2.292	1.952	34.894	267.0
3564	4	2.351	2.055	34.900	267.7
3144	5	2.546	2.291	34.917	269.1
2735	6	2.862	2.642	34.934	265.2
2320	7	3.276	3.089	34.957	261.6
1954	8	3.602	3.444	34.960	262.8
1699	9	3.922	3.784	34.980	259.4
1500	10	4.281	4.158	35.000	253.1
1349	11	4.617	4.504	35.021	245.9
1174	13	5.351	5.247	35.068	220.7
985	14	6.840	6.743	35.090	187.5
805	15	10.381	10.282	35.347	143.0
694	16	13.207	13.108	35.733	153.6
585	17	16.100	16.005	36.190	176.4
476	18	17.627	17.545	36.485	195.7
365	19	18.240	18.176	36.583	198.7
255	20	19.152	19.106	36.672	191.7
165	21	21.727	21.694	36.750	204.0
104	22	22.538	22.516	36.731	210.7
54	23	22.685	22.674	36.727	211.3
3	24	22.832	22.832	36.698	211.5

Abaco February – March 2013 R/V Brown  
 CTD Station 22 (CTD022)  
 Latitude 26.501 N Longitude 76.347 W  
 23-Feb-2012 06:06 Z

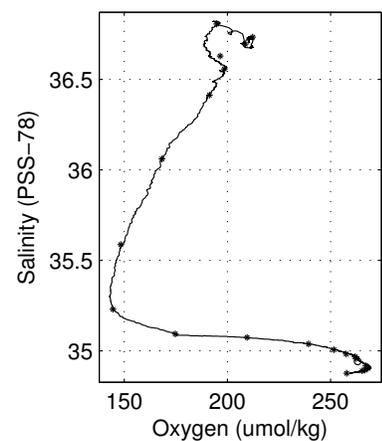
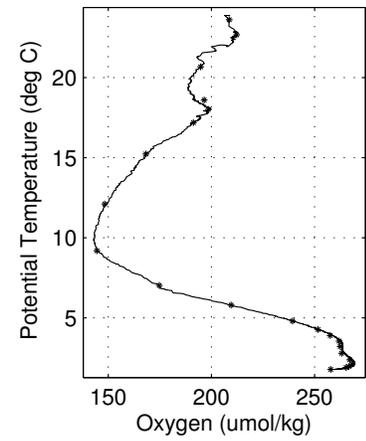
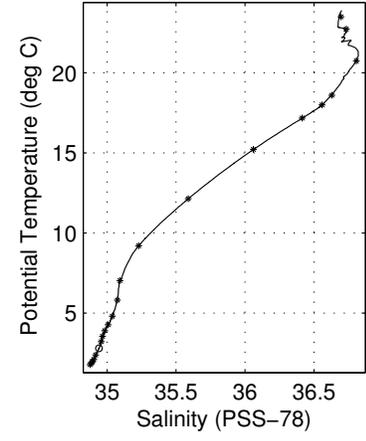
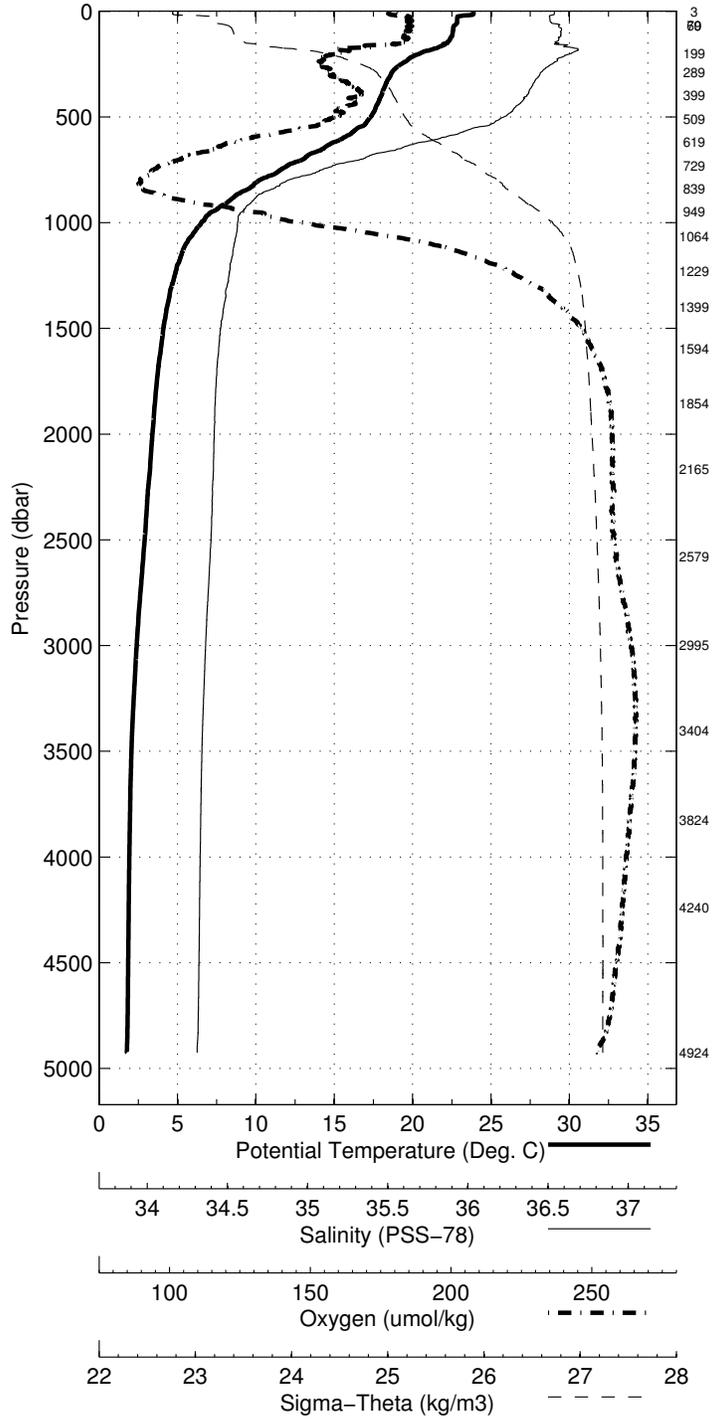


Abaco February - March 2012 R/V Brown  
 CTD Station 23 (CTD023)  
 Latitude 26.500N Longitude 76.479W  
 23-Feb-2012 10:41Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.882	23.882	36.701	208.7	0.003	24.965
10	23.886	23.884	36.699	206.7	0.030	24.963
20	23.416	23.412	36.680	208.5	0.059	25.088
30	22.856	22.850	36.677	211.2	0.087	25.249
50	22.846	22.836	36.679	211.1	0.141	25.255
75	22.606	22.591	36.722	210.9	0.209	25.359
100	22.569	22.548	36.731	211.6	0.274	25.378
125	22.440	22.415	36.720	210.1	0.340	25.407
150	22.245	22.215	36.712	210.6	0.405	25.458
200	20.520	20.482	36.785	192.5	0.521	25.995
250	19.323	19.277	36.688	188.9	0.619	26.240
300	18.666	18.613	36.625	192.4	0.709	26.363
400	18.077	18.008	36.560	198.5	0.883	26.466
500	17.407	17.322	36.442	193.1	1.051	26.544
600	15.646	15.551	36.119	170.9	1.212	26.712
700	13.097	12.997	35.712	153.8	1.353	26.946
800	10.302	10.205	35.339	143.2	1.472	27.181
900	8.320	8.222	35.155	155.7	1.570	27.362
1000	6.618	6.522	35.083	185.1	1.647	27.550
1100	5.635	5.537	35.066	217.1	1.710	27.663
1200	5.094	4.991	35.046	234.1	1.765	27.713
1300	4.746	4.637	35.030	244.1	1.817	27.741
1400	4.448	4.332	35.013	250.7	1.866	27.761
1500	4.219	4.096	34.996	255.3	1.914	27.773
1750	3.827	3.686	34.974	261.3	2.032	27.798
2000	3.560	3.399	34.964	263.3	2.146	27.818
2500	3.111	2.909	34.948	263.8	2.369	27.852
3000	2.642	2.399	34.920	268.2	2.583	27.875
3500	2.352	2.064	34.901	269.0	2.791	27.887
4000	2.269	1.928	34.892	266.8	3.002	27.891
4500	2.254	1.855	34.886	264.6	3.223	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4924	1	2.225	1.775	34.876	257.8
4240	2	2.260	1.891	34.889	265.3
3824	3	2.290	1.967	34.894	266.6
3404	4	2.387	2.108	34.903	268.1
2995	5	2.625	2.383	34.918	267.0
2579	6	3.003	2.795	34.941	263.1
2165	7	3.390	3.216	34.958	262.4
1855	8	3.704	3.555	34.967	261.9
1595	9	4.026	3.897	34.983	257.5
1400	10	4.382	4.267	35.007	251.6
1230	11	4.905	4.800	35.038	239.3
1064	13	5.911	5.813	35.074	209.6
949	14	7.115	7.021	35.093	174.7
840	15	9.298	9.201	35.229	144.5
729	16	12.238	12.139	35.588	148.2
620	17	15.323	15.226	36.060	168.2
509	18	17.268	17.182	36.413	191.2
400	19	18.073	18.003	36.557	198.5
290	20	18.657	18.605	36.629	196.5
199	21	20.776	20.738	36.806	194.7
70	22	22.754	22.739	36.734	212.3
70	23	22.751	22.804	-999.000	-999.0
4	24	23.501	23.500	36.694	208.6

Abaco February – March 2013 R/V Brown  
 CTD Station 23 (CTD023)  
 Latitude 26.500 N Longitude 76.479 W  
 23-Feb-2012 10:41 Z

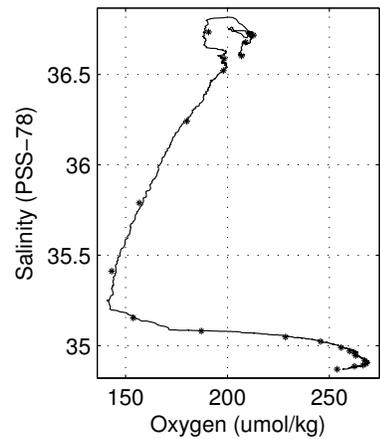
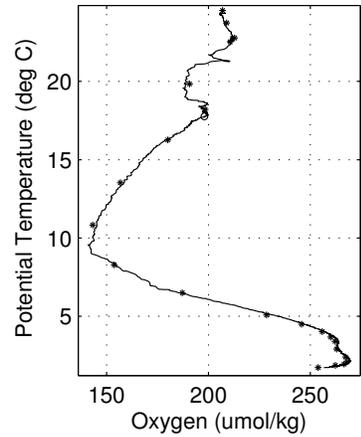
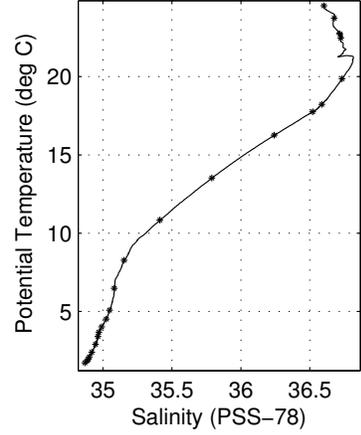
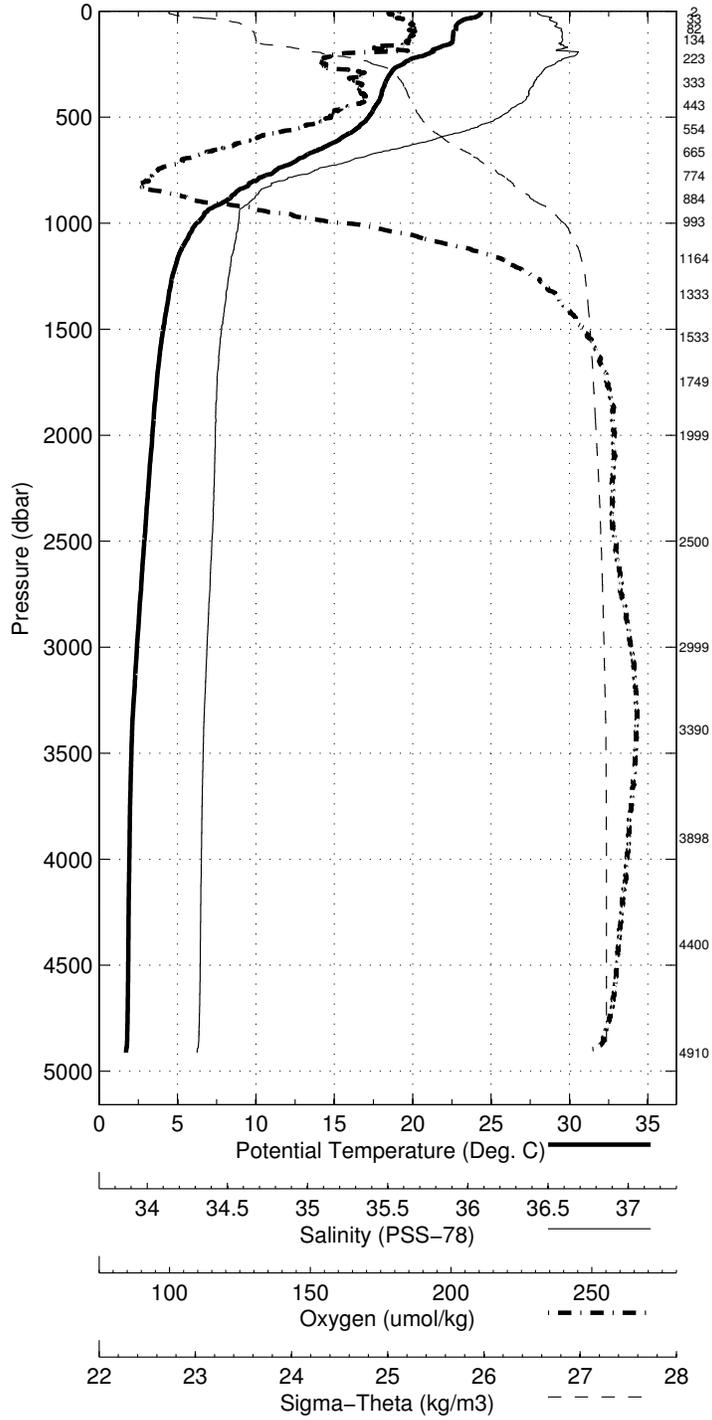


Abaco February - March 2012 R/V Brown  
 CTD Station 24 (CTD024)  
 Latitude 26.500N Longitude 76.565W  
 23-Feb-2012 15:38Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.352	24.352	36.610	208.2	0.003	24.755
10	24.351	24.349	36.609	206.4	0.032	24.756
20	24.226	24.222	36.627	206.3	0.063	24.807
30	23.860	23.854	36.679	207.4	0.094	24.957
50	23.036	23.026	36.690	211.0	0.151	25.209
75	22.778	22.762	36.707	212.0	0.219	25.298
100	22.617	22.597	36.734	210.9	0.286	25.366
125	22.584	22.558	36.733	211.3	0.352	25.376
150	22.503	22.473	36.726	210.5	0.418	25.395
200	21.114	21.075	36.811	193.5	0.539	25.853
250	19.428	19.382	36.695	189.4	0.639	26.218
300	18.569	18.516	36.619	199.5	0.729	26.383
400	18.058	17.988	36.561	199.3	0.901	26.472
500	17.271	17.186	36.415	190.6	1.069	26.556
600	15.499	15.405	36.092	171.0	1.228	26.724
700	12.763	12.665	35.665	152.4	1.368	26.976
800	10.034	9.938	35.302	143.6	1.484	27.199
900	8.028	7.933	35.138	157.8	1.579	27.392
1000	6.326	6.231	35.081	194.3	1.652	27.587
1100	5.513	5.415	35.061	220.9	1.712	27.674
1200	4.988	4.886	35.042	237.8	1.765	27.722
1300	4.656	4.547	35.025	246.1	1.816	27.747
1400	4.422	4.306	35.010	251.3	1.865	27.761
1500	4.214	4.091	34.996	255.7	1.913	27.773
1750	3.822	3.681	34.973	261.6	2.030	27.797
2000	3.563	3.402	34.963	263.3	2.144	27.818
2500	3.081	2.880	34.945	264.0	2.366	27.852
3000	2.659	2.416	34.921	267.9	2.581	27.874
3500	2.348	2.060	34.901	268.9	2.789	27.888
4000	2.270	1.928	34.892	266.8	2.999	27.891
4500	2.256	1.856	34.886	264.3	3.220	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4911	1	2.167	1.720	34.870	253.8
4400	2	2.253	1.865	34.886	262.2
3899	3	2.279	1.948	34.892	266.5
3391	4	2.380	2.102	34.902	268.0
2999	5	2.645	2.402	34.919	267.3
2500	6	3.111	2.909	34.946	262.9
1999	7	3.571	3.409	34.963	262.1
1749	8	3.820	3.679	34.970	260.0
1534	9	4.144	4.019	34.990	255.8
1334	10	4.625	4.513	35.023	245.7
1164	11	5.192	5.091	35.048	228.5
993	13	6.577	6.481	35.081	187.2
884	14	8.368	8.272	35.154	153.8
774	15	10.944	10.846	35.412	143.2
665	16	13.624	13.528	35.789	156.8
555	17	16.359	16.268	36.242	180.0
443	18	17.834	17.757	36.521	198.0
334	19	18.290	18.232	36.587	198.4
224	20	19.898	19.856	36.734	190.7
135	21	22.493	22.465	36.725	210.6
83	22	22.744	22.727	36.717	212.8
34	23	23.738	23.731	36.678	208.9
2	24	24.522	24.522	36.602	207.0

Abaco February – March 2013 R/V Brown  
 CTD Station 24 (CTD024)  
 Latitude 26.500 N Longitude 76.565 W  
 23-Feb-2012 15:38 Z

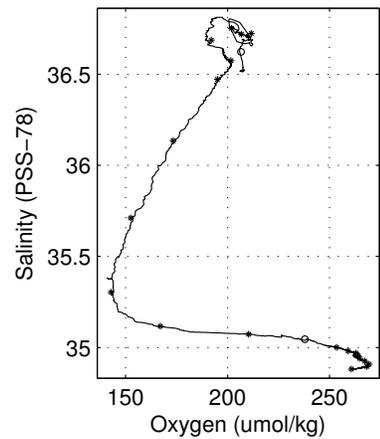
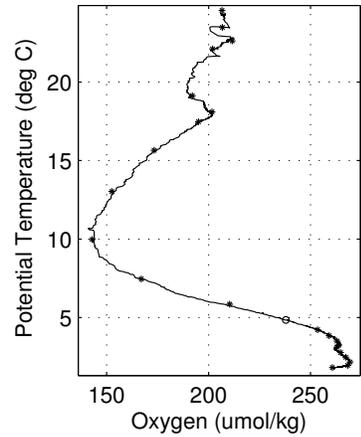
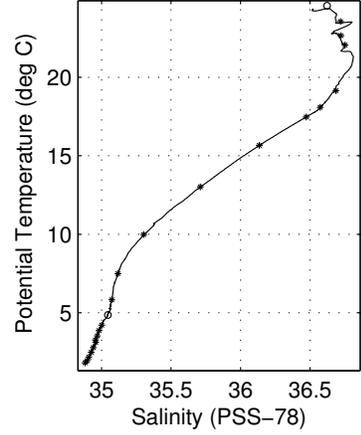
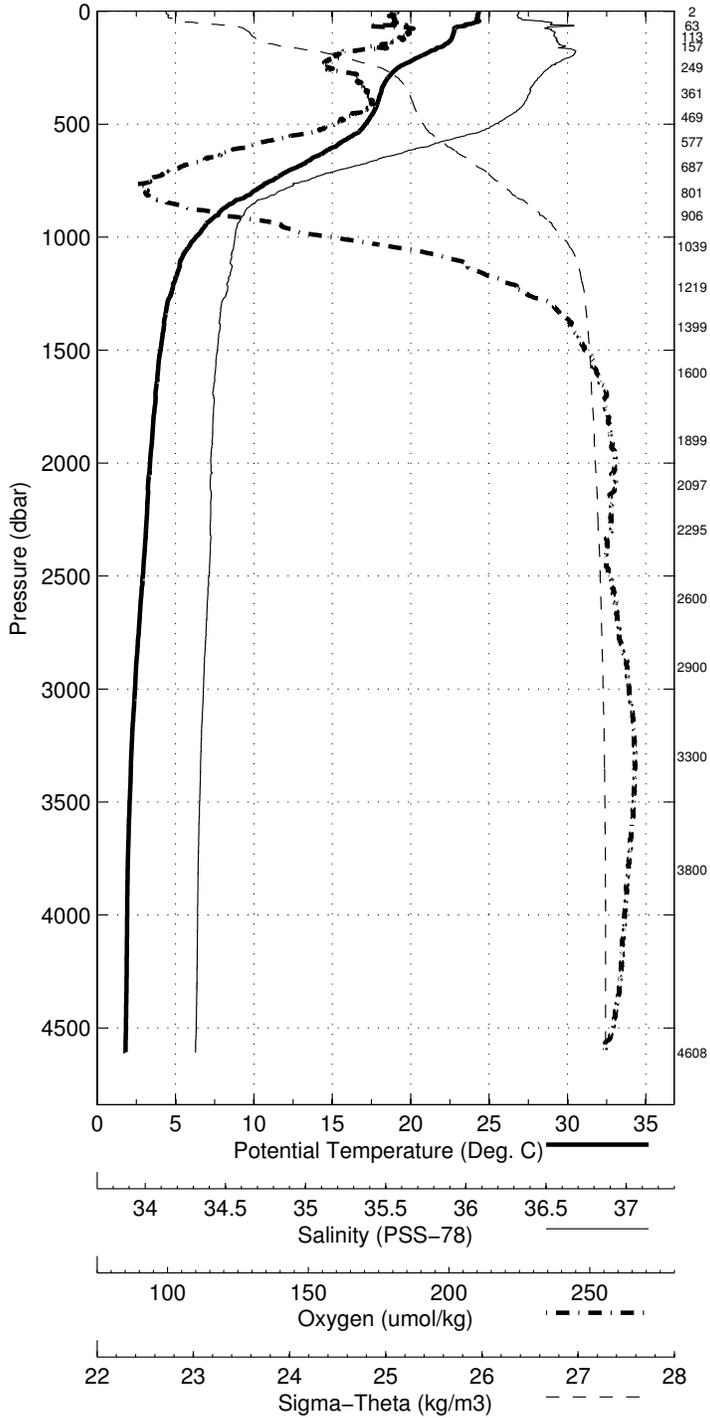


Abaco February - March 2012 R/V Brown  
 CTD Station 25 (CTD025)  
 Latitude 26.508N Longitude 76.654W  
 23-Feb-2012 19:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.344	24.344	36.524	208.1	0.003	24.693
10	24.325	24.323	36.521	206.5	0.032	24.696
20	24.261	24.257	36.516	206.3	0.065	24.713
30	24.246	24.240	36.521	208.1	0.097	24.721
50	24.085	24.075	36.688	208.1	0.161	24.898
75	22.788	22.773	36.655	211.8	0.233	25.255
100	22.742	22.722	36.705	211.3	0.300	25.308
125	22.609	22.583	36.717	209.7	0.367	25.357
150	22.156	22.126	36.735	204.8	0.433	25.501
200	20.638	20.600	36.791	192.2	0.548	25.967
250	19.224	19.179	36.676	190.5	0.647	26.257
300	18.538	18.485	36.618	198.3	0.737	26.390
400	17.973	17.904	36.554	201.5	0.907	26.487
500	17.181	17.097	36.402	192.0	1.075	26.567
600	15.272	15.178	36.055	169.8	1.232	26.746
700	12.488	12.392	35.623	150.3	1.369	26.997
800	10.004	9.908	35.299	143.6	1.484	27.201
900	7.832	7.738	35.127	162.9	1.576	27.413
1000	6.392	6.298	35.082	191.9	1.649	27.579
1100	5.439	5.342	35.061	223.0	1.709	27.683
1200	5.020	4.917	35.045	235.6	1.762	27.721
1300	4.577	4.469	35.014	247.9	1.813	27.746
1400	4.370	4.255	35.006	252.8	1.861	27.764
1500	4.169	4.047	34.992	256.4	1.909	27.775
1750	3.822	3.681	34.974	261.5	2.025	27.798
2000	3.533	3.373	34.959	264.2	2.140	27.817
2500	3.121	2.918	34.950	262.4	2.362	27.853
3000	2.654	2.411	34.921	267.8	2.577	27.875
3500	2.366	2.077	34.902	269.0	2.785	27.887
4000	2.260	1.918	34.892	266.6	2.995	27.891
4500	2.240	1.840	34.885	263.6	3.216	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4609	1	2.222	1.811	34.882	260.7
3800	2	2.272	1.953	34.896	268.3
3300	3	2.444	2.175	34.909	269.3
2901	4	2.718	2.483	34.926	267.3
2601	5	2.985	2.776	34.941	264.7
2296	6	3.309	3.124	34.958	262.8
2097	7	3.436	3.267	34.956	263.9
1900	8	3.672	3.519	34.970	262.9
1600	9	3.997	3.867	34.982	259.0
1400	10	4.319	4.205	35.001	253.4
1219	11	4.960	4.856	35.046	237.8
1039	13	5.922	5.827	35.073	210.3
906	14	7.587	7.493	35.117	167.1
801	15	10.082	9.985	35.303	142.9
688	16	13.117	13.020	35.711	152.5
578	17	15.761	15.669	36.136	173.3
469	18	17.549	17.469	36.473	195.0
361	19	18.142	18.078	36.574	201.7
250	20	19.186	19.141	36.687	192.0
158	21	22.082	22.050	36.752	201.9
113	22	22.678	22.655	36.723	211.6
64	23	23.558	23.545	36.720	206.8
3	24	24.556	24.555	36.623	206.6

Abaco February – March 2013 R/V Brown  
 CTD Station 25 (CTD025)  
 Latitude 26.508 N Longitude 76.654 W  
 23-Feb-2012 19:45 Z

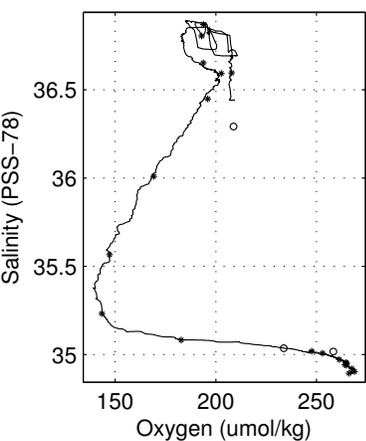
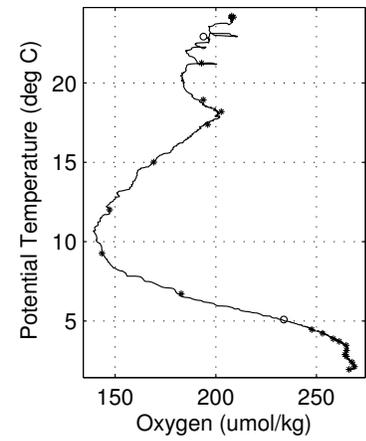
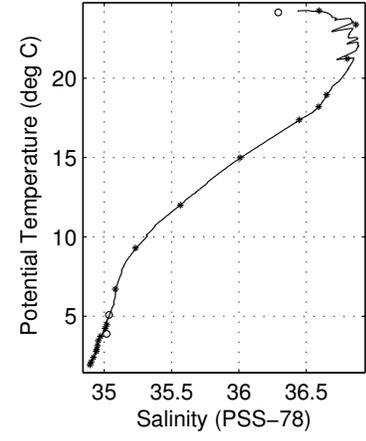
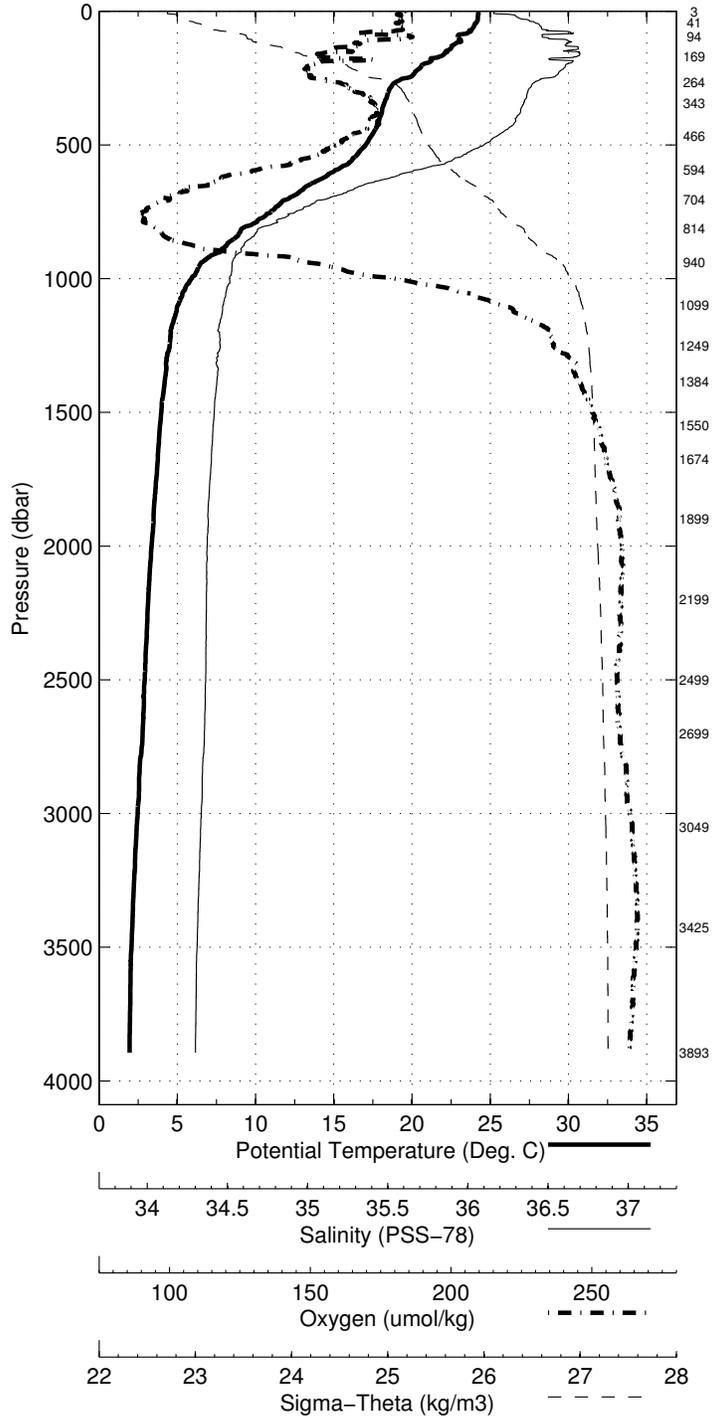


Abaco February - March 2012 R/V Brown  
 CTD Station 26 (CTD026)  
 Latitude 26.499N Longitude 76.741W  
 23-Feb-2012 23:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.237	24.237	36.444	209.0	0.003	24.664
10	24.246	24.244	36.459	207.5	0.033	24.673
20	24.211	24.207	36.559	207.5	0.065	24.761
30	24.212	24.205	36.598	207.5	0.096	24.790
50	24.007	23.996	36.678	208.0	0.159	24.914
75	23.777	23.761	36.811	205.5	0.234	25.085
100	23.003	22.983	36.726	208.8	0.303	25.249
125	22.717	22.691	36.817	196.8	0.371	25.402
150	22.225	22.195	36.827	194.7	0.434	25.551
200	20.680	20.642	36.816	184.0	0.550	25.975
250	19.659	19.613	36.714	184.7	0.651	26.172
300	18.559	18.506	36.619	195.7	0.741	26.386
400	17.981	17.911	36.554	200.4	0.913	26.485
500	17.116	17.032	36.390	190.9	1.079	26.574
600	15.083	14.990	36.014	168.7	1.236	26.757
700	12.204	12.109	35.580	147.1	1.371	27.019
800	9.786	9.691	35.280	143.3	1.484	27.224
900	7.870	7.776	35.131	162.7	1.575	27.410
1000	5.990	5.898	35.071	206.6	1.644	27.622
1100	5.127	5.033	35.037	233.8	1.700	27.701
1200	4.691	4.591	35.019	246.9	1.751	27.737
1300	4.414	4.308	35.004	252.3	1.799	27.757
1400	4.279	4.165	35.003	254.7	1.846	27.771
1500	4.096	3.975	34.991	257.4	1.893	27.782
1750	3.795	3.655	34.969	262.4	2.008	27.797
2000	3.519	3.359	34.955	265.0	2.123	27.815
2500	3.118	2.916	34.947	263.8	2.346	27.850
3000	2.708	2.464	34.924	267.1	2.563	27.872
3500	2.357	2.068	34.902	268.8	2.773	27.888

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3894	1	2.276	1.946	34.894	266.2
3426	2	2.410	2.128	34.904	268.8
3050	3	2.662	2.414	34.919	267.6
2700	4	2.997	2.777	34.941	264.9
2500	5	3.096	2.894	34.943	264.2
2200	6	3.321	3.144	34.950	264.9
1899	7	3.615	3.463	34.955	264.7
1675	8	3.858	3.723	34.972	261.3
1551	9	4.021	3.896	35.017	258.4
1385	10	4.350	4.237	35.007	253.0
1250	11	4.572	4.468	35.019	247.7
1099	13	5.175	5.080	35.036	233.8
940	14	6.794	6.702	35.082	182.8
814	15	9.394	9.300	35.232	143.5
704	16	12.091	11.997	35.567	147.3
594	17	15.079	14.987	36.009	169.2
466	18	17.446	17.366	36.448	196.0
343	19	18.253	18.193	36.592	202.7
265	20	18.988	18.940	36.652	193.8
170	21	21.260	21.227	36.805	193.0
94	22	23.393	23.374	36.870	193.9
42	23	24.255	24.246	36.595	207.9
3	24	24.142	24.141	36.293	208.8

Abaco February – March 2013 R/V Brown  
 CTD Station 26 (CTD026)  
 Latitude 26.499 N Longitude 76.741 W  
 23-Feb-2012 23:36 Z

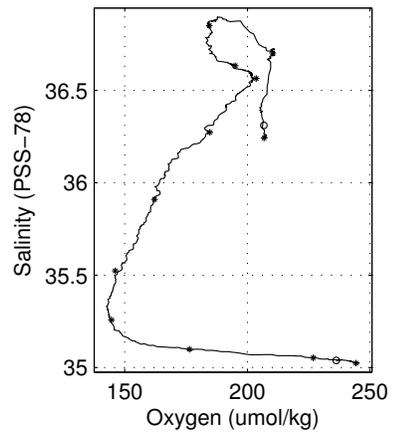
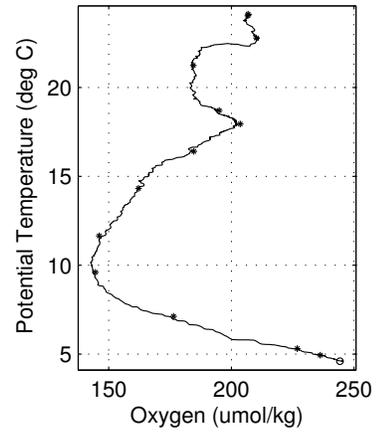
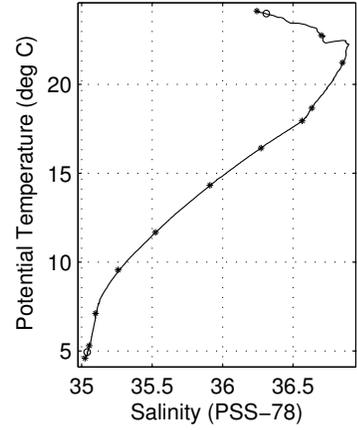
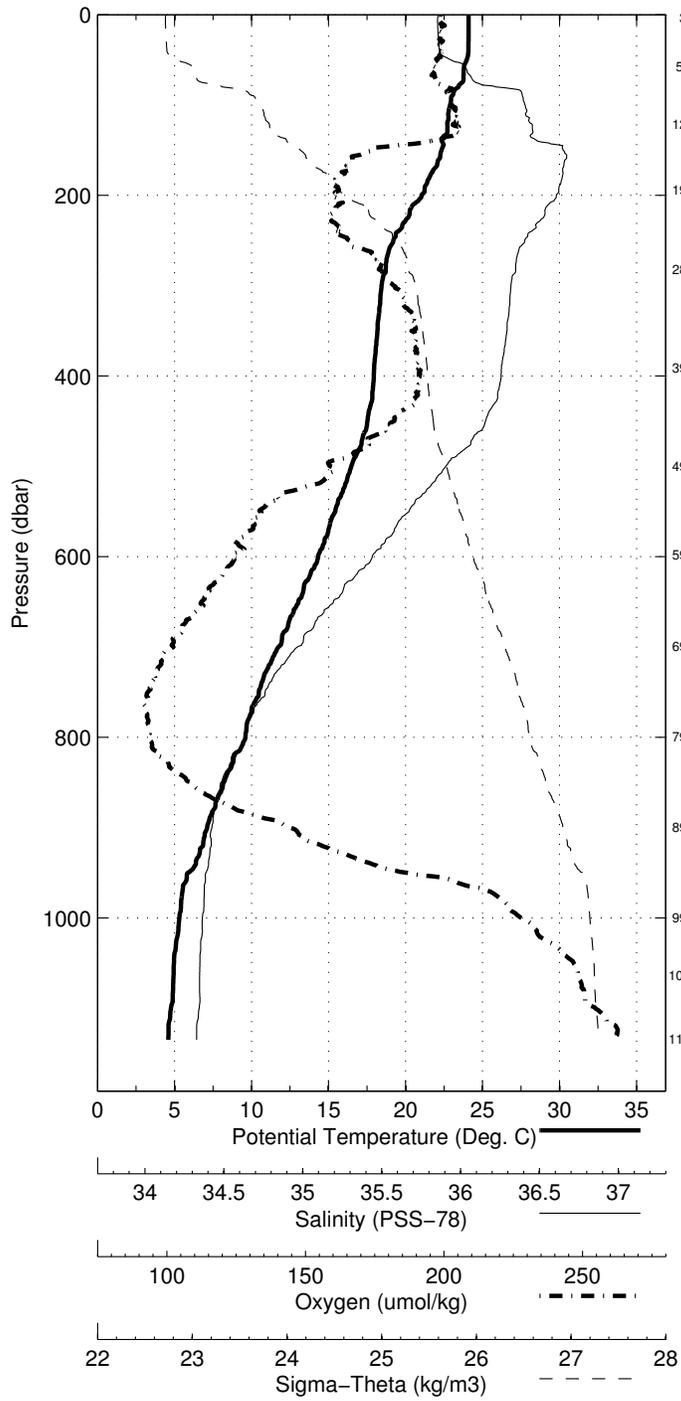


Abaco February - March 2012 R/V Brown  
 CTD Station 27 (CTD027)  
 Latitude 26.516N Longitude 76.831W  
 24-Feb-2012 03:35Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.096	24.096	36.245	206.9	0.003	24.555
10	24.098	24.096	36.244	206.9	0.034	24.555
20	24.096	24.092	36.245	206.9	0.068	24.557
30	24.093	24.087	36.249	207.3	0.101	24.561
50	23.977	23.967	36.311	206.2	0.169	24.644
75	23.691	23.675	36.437	206.1	0.249	24.826
100	22.911	22.890	36.685	209.4	0.320	25.244
125	22.741	22.716	36.722	210.6	0.388	25.323
150	22.369	22.339	36.878	191.4	0.453	25.549
200	21.070	21.031	36.843	183.7	0.570	25.889
250	19.255	19.209	36.684	187.2	0.670	26.255
300	18.493	18.440	36.614	196.8	0.760	26.398
400	18.006	17.936	36.564	202.3	0.930	26.486
500	16.562	16.479	36.285	183.0	1.096	26.625
600	14.415	14.325	35.913	161.8	1.245	26.824
700	11.837	11.744	35.535	149.0	1.375	27.053
800	9.690	9.595	35.274	143.6	1.483	27.234
900	7.214	7.124	35.103	174.3	1.570	27.483
1000	5.398	5.311	35.054	224.5	1.633	27.682
1100	4.859	4.767	35.039	240.5	1.684	27.733

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
1134	1	4.687	4.593	35.024	244.2
1064	2	5.026	4.935	35.038	236.2
1000	3	5.384	5.297	35.053	226.8
899	4	7.202	7.112	35.098	176.4
800	5	9.647	9.553	35.257	144.6
699	6	11.761	11.668	35.524	146.1
598	7	14.415	14.325	35.910	162.1
500	8	16.501	16.419	36.273	184.7
391	9	18.015	17.947	36.564	203.6
282	10	18.719	18.669	36.633	195.0
194	11	21.258	21.220	36.851	184.5
122	13	22.779	22.754	36.702	210.2
57	14	23.999	23.987	36.310	206.7
3	15	24.129	24.128	36.243	206.8

Abaco February – March 2013 R/V Brown  
 CTD Station 27 (CTD027)  
 Latitude 26.516 N Longitude 76.831 W  
 24-Feb-2012 03:35 Z

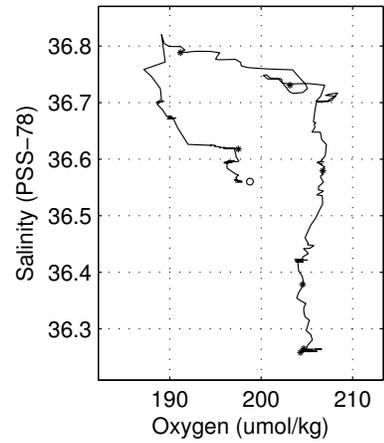
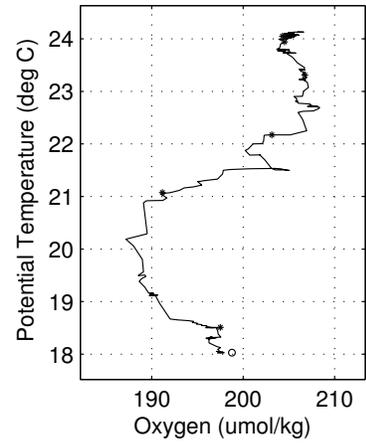
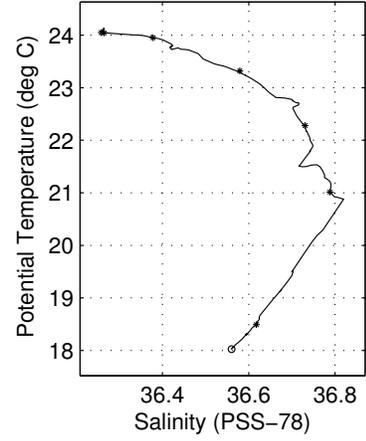
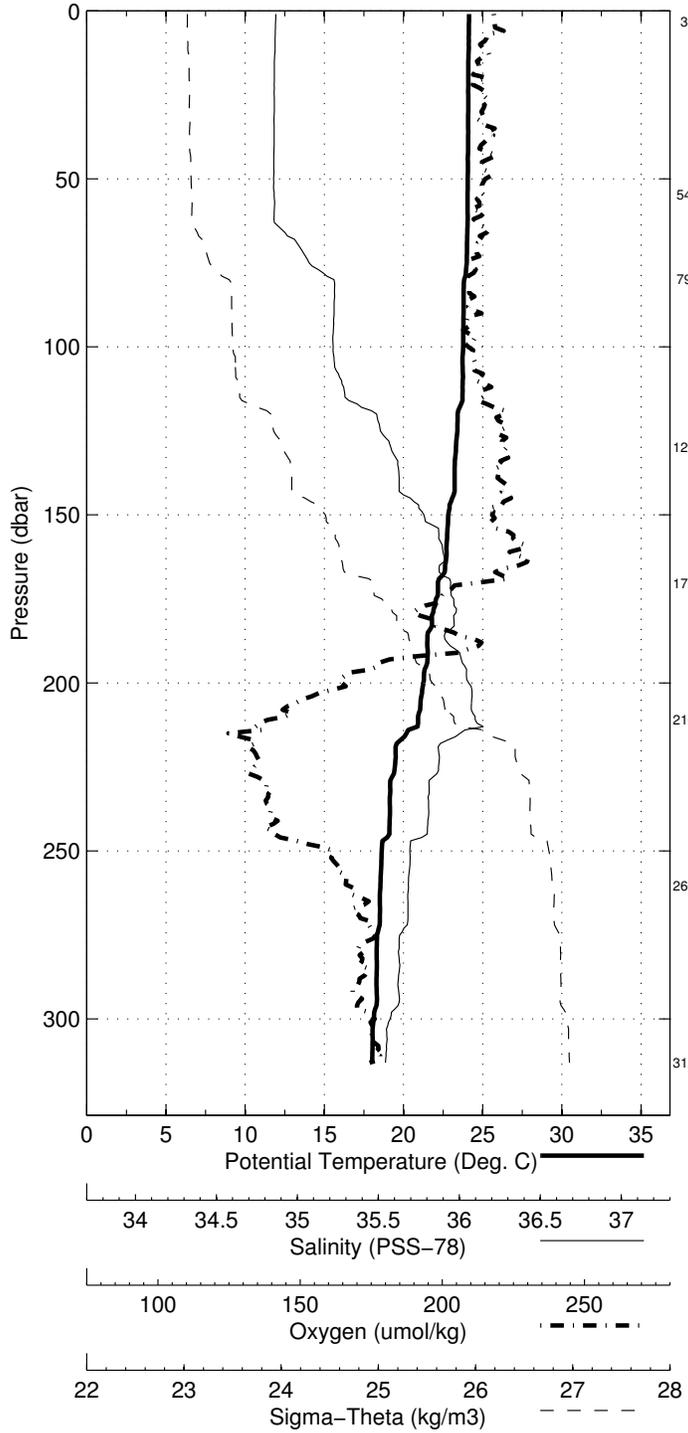


Abaco February - March 2012 R/V Brown  
 CTD Station 28 (CTD028)  
 Latitude 26.525N Longitude 76.892W  
 24-Feb-2012 05:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.133	24.133	36.266	205.9	0.003	24.560
10	24.122	24.120	36.264	205.0	0.034	24.562
20	24.100	24.096	36.262	205.5	0.067	24.568
30	24.097	24.091	36.262	205.0	0.101	24.570
50	24.066	24.056	36.260	205.3	0.168	24.579
75	24.008	23.992	36.355	203.9	0.252	24.670
100	23.788	23.767	36.419	204.1	0.332	24.785
125	23.428	23.402	36.546	206.3	0.411	24.989
150	22.853	22.822	36.662	205.8	0.484	25.246
200	21.300	21.261	36.782	195.2	0.611	25.779
250	18.666	18.622	36.624	194.6	0.709	26.360
300	18.176	18.124	36.572	197.5	0.795	26.446

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
313	1	18.081	18.026	36.560	198.8
260	2	18.537	18.491	36.618	197.5
211	3	21.057	21.016	36.788	191.2
170	4	22.315	22.281	36.731	203.1
130	5	23.348	23.321	36.580	206.7
80	6	23.967	23.950	36.378	204.5
55	7	24.054	24.043	36.265	204.7
3	8	24.050	24.049	36.258	204.3

Abaco February – March 2013 R/V Brown  
 CTD Station 28 (CTD028)  
 Latitude 26.525 N Longitude 76.892 W  
 24-Feb-2012 05:45 Z

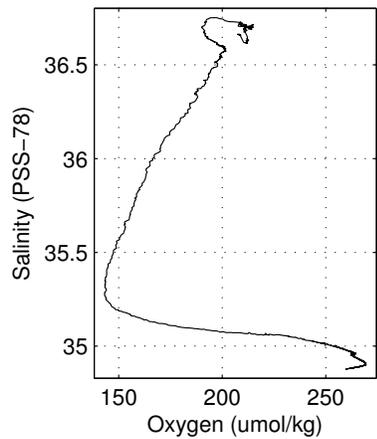
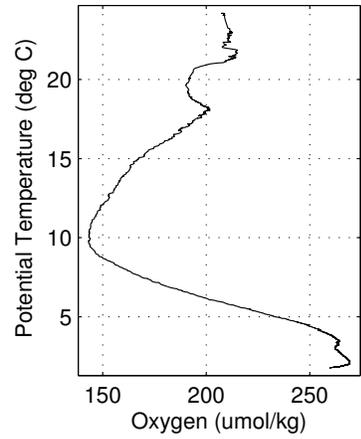
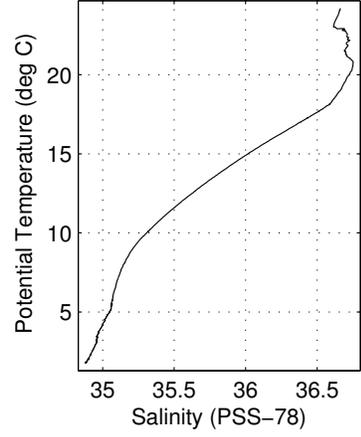
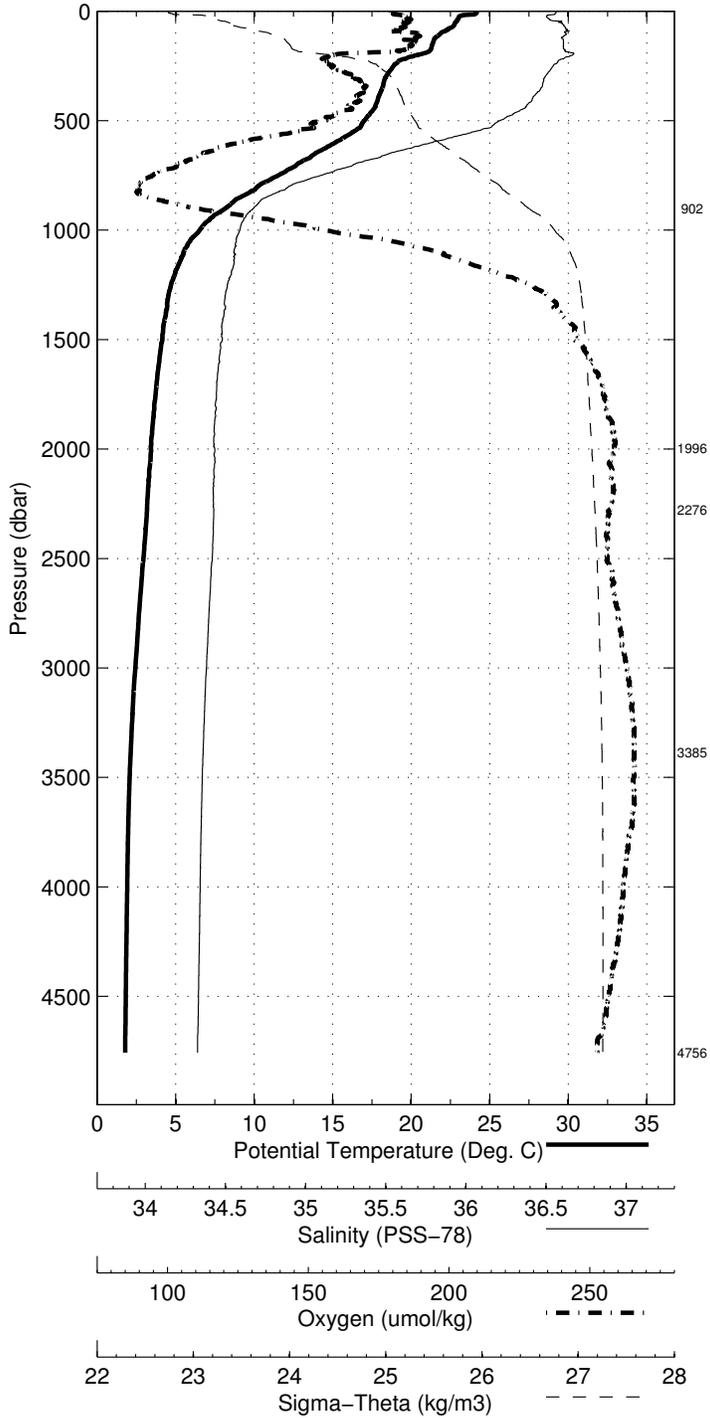


Abaco February - March 2012 R/V Brown  
 CTD Station 29 (CTD029)  
 Latitude 26.500N Longitude 75.704W  
 24-Feb-2012 23:36Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.179	24.179	36.664	207.5	0.003	24.848
10	24.147	24.144	36.662	208.9	0.031	24.857
20	23.218	23.214	36.620	211.3	0.061	25.100
30	23.021	23.015	36.622	211.6	0.089	25.160
50	22.820	22.809	36.676	210.3	0.144	25.261
75	22.577	22.562	36.711	210.6	0.212	25.359
100	21.906	21.886	36.711	214.1	0.275	25.550
125	21.508	21.484	36.697	213.4	0.336	25.653
150	21.380	21.351	36.701	213.7	0.395	25.692
200	20.453	20.415	36.746	193.3	0.509	25.983
250	18.916	18.871	36.649	193.1	0.604	26.315
300	18.434	18.381	36.608	197.5	0.692	26.409
400	17.949	17.879	36.545	199.2	0.862	26.486
500	17.102	17.018	36.386	190.4	1.029	26.574
600	15.280	15.187	36.049	170.0	1.187	26.740
700	12.814	12.716	35.657	152.7	1.326	26.959
800	10.318	10.220	35.333	143.5	1.445	27.174
900	8.275	8.178	35.158	157.9	1.542	27.371
1000	6.645	6.548	35.090	191.0	1.619	27.552
1100	5.598	5.500	35.059	219.7	1.681	27.662
1200	5.061	4.957	35.048	235.2	1.736	27.718
1300	4.642	4.533	35.016	247.6	1.787	27.741
1400	4.440	4.324	35.006	251.5	1.836	27.757
1500	4.271	4.148	35.001	254.1	1.884	27.771
1750	3.870	3.728	34.972	261.3	2.003	27.792
2000	3.598	3.437	34.964	263.6	2.119	27.815
2500	3.153	2.950	34.952	262.4	2.344	27.851
3000	2.678	2.434	34.923	267.2	2.560	27.874
3500	2.358	2.070	34.902	269.1	2.769	27.888
4000	2.259	1.918	34.892	266.5	2.979	27.891
4500	2.225	1.826	34.884	262.8	3.199	27.892

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4756	2	2.219	8.680	-999.000	-999.0
3385	3	2.411	7.369	-999.000	-999.0
2276	4	3.351	6.815	-999.000	-999.0
1996	6	3.607	6.672	-999.000	-999.0
903	8	8.399	9.668	-999.000	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 29 (CTD029)  
 Latitude 26.500 N Longitude 75.704 W  
 24-Feb-2012 23:36 Z

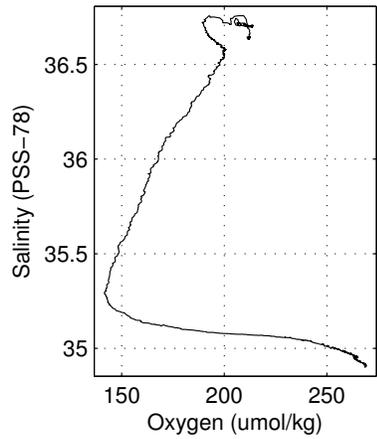
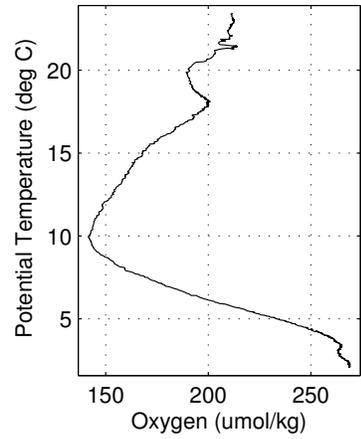
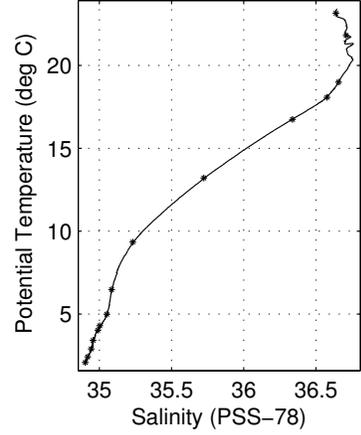
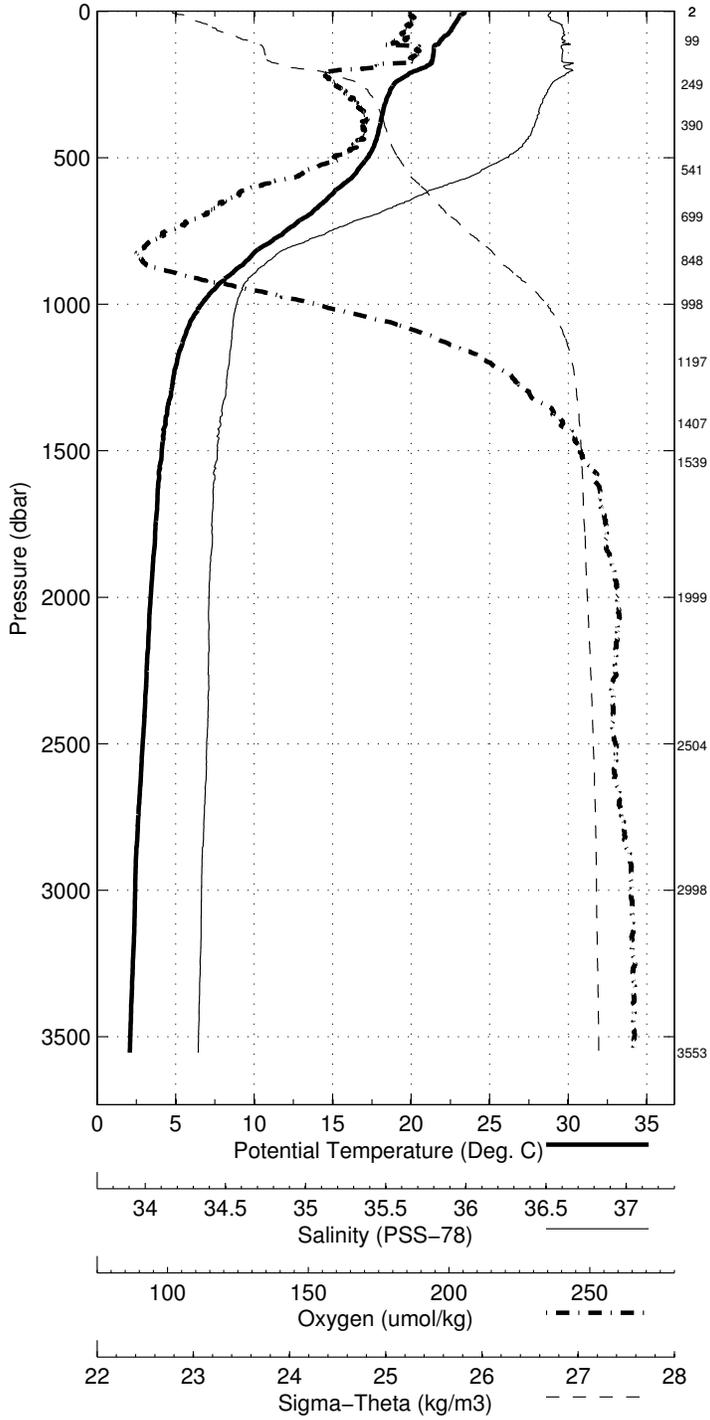


Abaco February - March 2012 R/V Brown  
 CTD Station 30 (CTD030)  
 Latitude 26.500N Longitude 76.089W  
 26-Feb-2012 00:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	23.403	23.402	36.647	211.5	0.003	25.066
10	23.269	23.267	36.637	211.4	0.029	25.098
20	23.063	23.059	36.639	212.5	0.057	25.160
30	22.949	22.943	36.645	212.3	0.085	25.199
50	22.703	22.693	36.702	211.2	0.139	25.314
75	22.415	22.400	36.709	209.3	0.205	25.403
100	21.886	21.866	36.718	209.8	0.268	25.562
125	21.470	21.445	36.700	213.1	0.328	25.666
150	21.435	21.405	36.703	213.1	0.387	25.679
200	20.500	20.462	36.750	193.9	0.502	25.974
250	18.925	18.881	36.649	192.8	0.598	26.313
300	18.473	18.420	36.608	196.2	0.687	26.399
400	18.022	17.953	36.557	199.4	0.858	26.477
500	17.289	17.205	36.426	193.0	1.026	26.560
600	15.560	15.465	36.101	171.3	1.185	26.717
700	13.465	13.364	35.752	158.1	1.329	26.902
800	10.756	10.655	35.378	143.9	1.453	27.133
900	8.572	8.473	35.171	153.4	1.554	27.336
1000	6.751	6.653	35.093	187.7	1.634	27.540
1100	5.759	5.659	35.070	215.0	1.698	27.651
1200	5.185	5.080	35.057	232.0	1.753	27.711
1300	4.823	4.712	35.039	242.0	1.805	27.740
1400	4.457	4.341	35.009	250.6	1.854	27.757
1500	4.237	4.114	34.997	255.2	1.903	27.772
1750	3.867	3.725	34.970	261.6	2.021	27.791
2000	3.574	3.413	34.957	264.4	2.138	27.811
2500	3.104	2.903	34.945	264.0	2.363	27.850
3000	2.666	2.423	34.919	268.4	2.577	27.872
3500	2.404	2.114	34.904	268.9	2.789	27.886

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3554	2	2.381	2.086	34.902	-999.0
2999	3	2.665	2.422	34.919	-999.0
2505	4	3.103	2.901	34.943	-999.0
2000	6	3.569	3.408	34.956	-999.0
1540	8	4.152	4.026	34.990	-999.0
1407	9	4.408	4.291	35.003	-999.0
1197	10	5.087	4.984	35.051	-999.0
999	14	6.573	6.477	35.085	-999.0
849	15	9.440	9.342	35.232	-999.0
699	16	13.304	13.204	35.724	-999.0
542	18	16.827	16.736	36.338	-999.0
390	20	18.138	18.069	36.577	-999.0
249	21	19.034	18.989	36.656	-999.0
99	22	21.824	21.805	36.710	-999.0
3	23	23.151	23.153	-999.000	-999.0
3	24	23.151	23.151	36.639	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 30 (CTD030)  
 Latitude 26.500 N Longitude 76.089 W  
 26-Feb-2012 00:06 Z

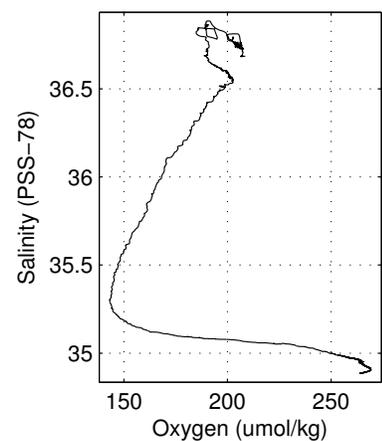
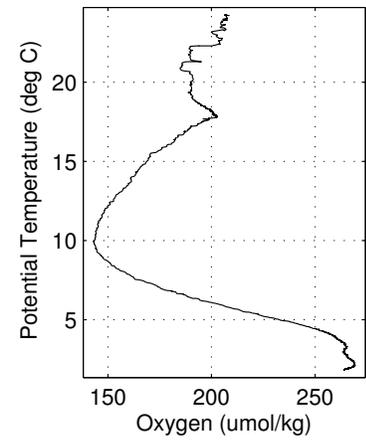
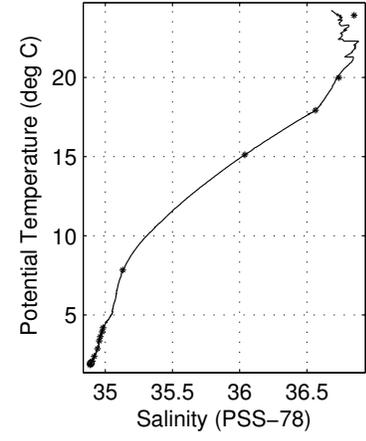
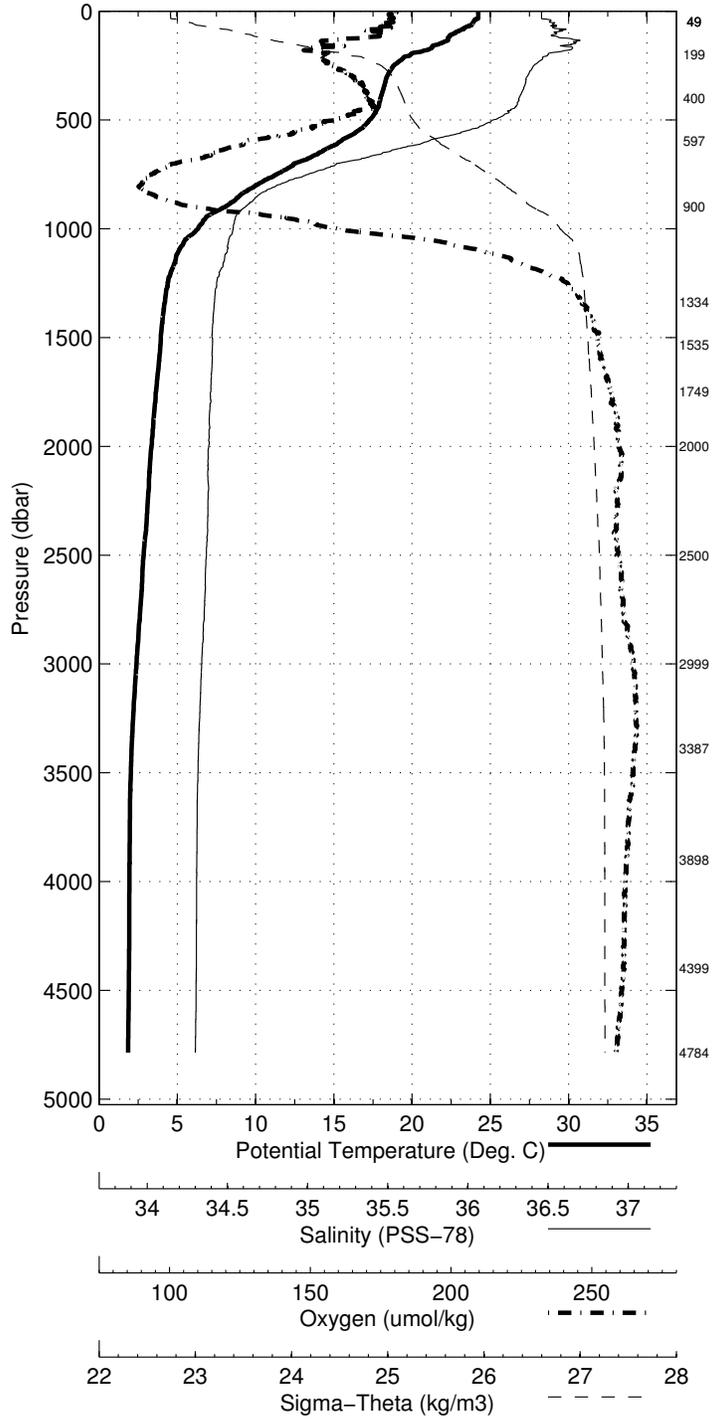


Abaco February - March 2012 R/V Brown  
 CTD Station 31 (CTD031)  
 Latitude 26.503N Longitude 76.538W  
 28-Feb-2012 02:32Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.217	24.217	36.686	208.3	0.003	24.854
10	24.227	24.225	36.684	206.2	0.031	24.850
20	24.231	24.227	36.684	207.4	0.062	24.849
30	24.232	24.225	36.684	207.5	0.093	24.850
50	23.933	23.923	36.728	207.0	0.154	24.973
75	23.387	23.372	36.742	206.9	0.227	25.147
100	22.797	22.776	36.757	205.3	0.295	25.332
125	22.320	22.295	36.826	198.1	0.360	25.522
150	21.772	21.743	36.848	188.8	0.421	25.695
200	19.932	19.895	36.718	189.8	0.529	26.100
250	18.865	18.820	36.644	192.0	0.623	26.325
300	18.442	18.389	36.609	197.2	0.710	26.408
400	18.054	17.984	36.568	200.3	0.881	26.477
500	17.351	17.266	36.432	193.1	1.050	26.550
600	15.463	15.369	36.085	170.2	1.210	26.727
700	12.554	12.457	35.620	152.2	1.350	26.981
800	10.105	10.009	35.309	143.6	1.467	27.192
900	8.135	8.039	35.145	157.5	1.562	27.382
1000	6.416	6.321	35.082	193.6	1.636	27.576
1100	5.196	5.101	35.051	230.0	1.694	27.704
1200	4.669	4.569	35.009	245.9	1.745	27.732
1300	4.371	4.265	34.988	254.2	1.794	27.748
1400	4.191	4.078	34.978	257.5	1.842	27.761
1500	4.062	3.941	34.973	259.4	1.889	27.771
1750	3.772	3.632	34.965	262.8	2.006	27.796
2000	3.504	3.344	34.954	264.5	2.121	27.816
2500	3.049	2.848	34.943	264.2	2.343	27.854
3000	2.632	2.389	34.918	268.5	2.556	27.874
3500	2.321	2.033	34.899	268.3	2.762	27.888
4000	2.279	1.937	34.892	266.3	2.972	27.890
4500	2.298	1.897	34.889	265.5	3.195	27.891

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
4785	2	2.286	1.851	34.886	-999.0
4399	3	2.298	1.909	34.890	-999.0
3899	4	2.276	1.946	34.893	-999.0
3387	6	2.356	2.079	34.903	-999.0
3000	8	2.623	2.380	34.918	-999.0
2500	9	3.063	2.862	34.942	-999.0
2000	10	3.520	3.360	34.954	-999.0
1750	14	3.772	3.632	34.963	-999.0
1535	15	4.060	3.936	34.977	-999.0
1335	16	4.298	4.189	34.984	-999.0
900	18	7.930	7.835	35.130	-999.0
598	20	15.206	15.113	36.038	-999.0
400	21	18.002	17.933	36.564	-999.0
200	22	20.029	19.992	36.738	-999.0
50	23	23.945	23.979	-999.000	-999.0
50	24	23.939	23.928	36.851	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 31 (CTD031)  
 Latitude 26.503 N Longitude 76.538 W  
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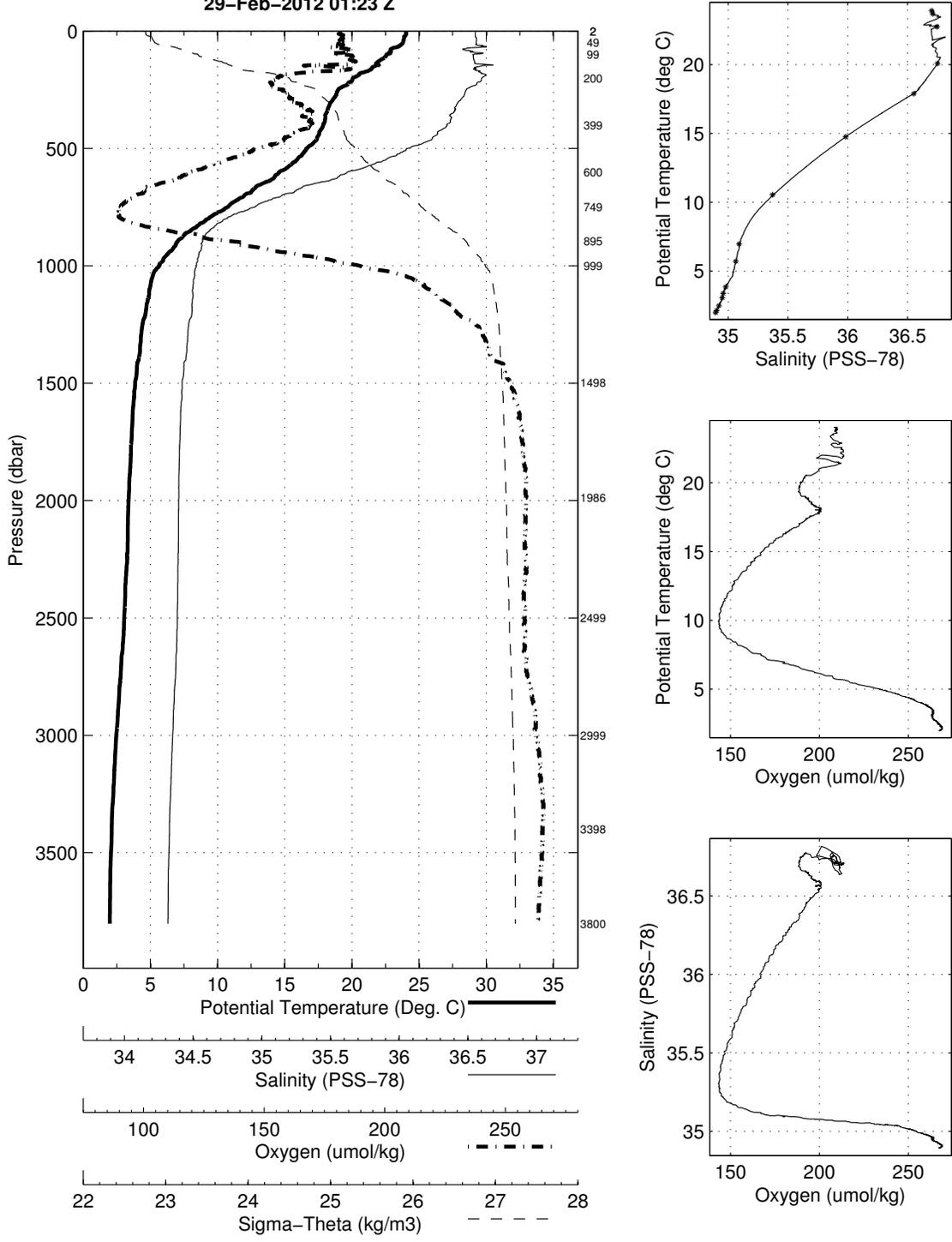


Abaco February - March 2012 R/V Brown  
 CTD Station 32 (CTD032)  
 Latitude 26.500N Longitude 76.744W  
 29-Feb-2012 01:23Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.039	24.038	36.713	209.0	0.003	24.927
10	24.036	24.034	36.712	209.0	0.030	24.928
20	23.981	23.977	36.712	209.8	0.060	24.945
30	23.885	23.879	36.718	210.0	0.090	24.979
50	23.813	23.802	36.717	209.6	0.150	25.001
75	23.008	22.992	36.653	210.6	0.222	25.190
100	22.585	22.565	36.697	210.1	0.290	25.347
125	22.107	22.082	36.704	212.7	0.356	25.490
150	21.724	21.694	36.740	204.6	0.417	25.626
200	20.124	20.086	36.750	190.1	0.528	26.074
250	19.040	18.995	36.660	192.4	0.625	26.292
300	18.540	18.487	36.615	195.4	0.714	26.387
400	17.930	17.861	36.545	199.5	0.884	26.490
500	16.698	16.615	36.310	184.3	1.050	26.612
600	14.688	14.596	35.958	164.9	1.203	26.799
700	12.088	11.994	35.569	148.7	1.336	27.032
800	9.374	9.282	35.238	144.8	1.446	27.259
900	7.069	6.980	35.098	179.9	1.530	27.499
1000	5.722	5.633	35.065	214.8	1.596	27.650
1100	5.031	4.937	35.042	235.3	1.649	27.716
1200	4.747	4.647	35.038	243.6	1.698	27.746
1300	4.401	4.295	35.012	251.3	1.746	27.764
1400	4.242	4.128	35.002	254.4	1.793	27.774
1500	3.987	3.867	34.980	259.7	1.839	27.784
1750	3.721	3.582	34.966	262.7	1.953	27.802
2000	3.537	3.376	34.960	263.8	2.066	27.817
2500	3.258	3.053	34.951	263.5	2.296	27.841
3000	2.707	2.463	34.924	266.9	2.518	27.872
3500	2.356	2.068	34.901	268.7	2.728	27.887

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3801	2	2.299	1.978	34.896	-999.0
3399	3	2.405	2.126	34.904	-999.0
2999	4	2.724	2.479	34.923	-999.0
2499	6	3.262	3.057	34.952	-999.0
1987	8	3.539	3.379	34.960	-999.0
1499	9	3.962	3.842	34.980	-999.0
1000	10	5.792	5.702	35.064	-999.0
896	14	7.051	6.962	35.091	-999.0
750	15	10.635	10.542	35.372	-999.0
600	16	14.853	14.760	35.983	-999.0
400	18	17.959	17.889	36.552	-999.0
200	20	20.127	20.090	36.751	-999.0
100	21	22.776	22.755	36.747	-999.0
49	22	23.714	23.704	36.711	-999.0
3	23	23.919	23.921	-999.000	-999.0
3	24	23.916	23.915	36.701	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 32 (CTD032)  
 Latitude 26.500 N Longitude 76.744 W  
 29-Feb-2012 01:23 Z

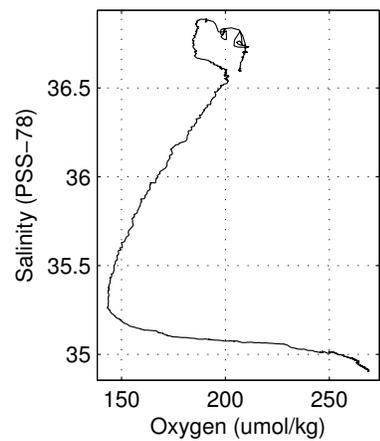
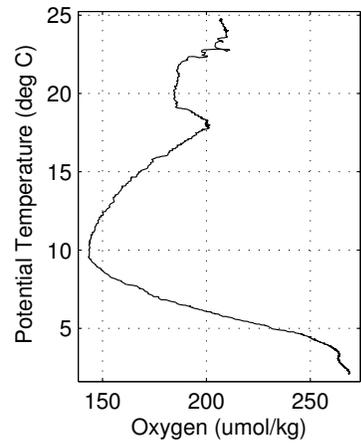
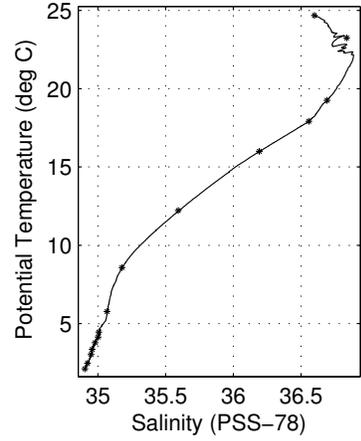
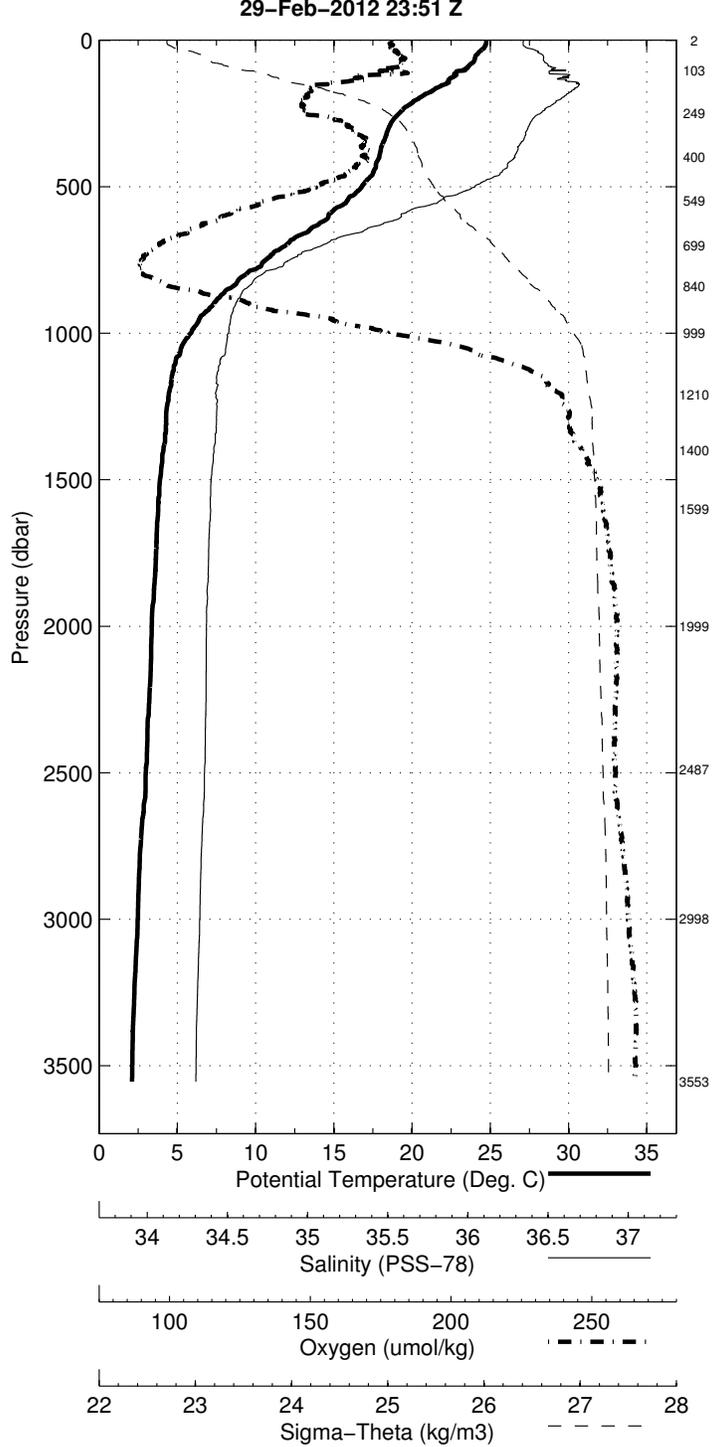


Abaco February - March 2012 R/V Brown  
 CTD Station 33 (CTD033)  
 Latitude 26.499N Longitude 76.742W  
 29-Feb-2012 23:51Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.743	24.743	36.598	207.1	0.003	24.628
10	24.736	24.734	36.596	207.4	0.033	24.629
20	24.661	24.657	36.601	206.1	0.066	24.656
30	24.503	24.497	36.643	207.1	0.099	24.736
50	24.108	24.097	36.698	208.5	0.161	24.898
75	23.935	23.919	36.708	209.5	0.238	24.959
100	23.334	23.313	36.742	207.2	0.311	25.164
125	22.655	22.629	36.799	198.4	0.378	25.406
150	22.158	22.128	36.888	191.0	0.441	25.617
200	20.463	20.425	36.793	184.9	0.552	26.016
250	19.210	19.164	36.685	185.6	0.649	26.267
300	18.560	18.507	36.621	197.2	0.738	26.387
400	17.975	17.905	36.554	200.4	0.909	26.487
500	16.885	16.802	36.347	187.5	1.075	26.596
600	14.755	14.663	35.967	164.4	1.228	26.792
700	12.014	11.920	35.557	147.8	1.360	27.037
800	9.452	9.360	35.245	144.3	1.470	27.252
900	7.418	7.327	35.111	171.2	1.557	27.460
1000	5.959	5.868	35.072	206.1	1.625	27.627
1100	4.975	4.881	35.029	236.7	1.679	27.712
1200	4.577	4.478	35.008	248.9	1.729	27.741
1300	4.385	4.279	35.011	252.1	1.776	27.765
1400	4.220	4.106	34.997	255.3	1.823	27.773
1500	4.008	3.887	34.983	259.0	1.869	27.785
1750	3.779	3.639	34.970	262.4	1.983	27.800
2000	3.528	3.367	34.960	264.1	2.097	27.818
2500	3.188	2.985	34.949	263.8	2.324	27.846
3000	2.712	2.468	34.925	267.0	2.541	27.873
3500	2.411	2.121	34.905	268.8	2.752	27.886

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
3553	2	2.401	2.105	34.904	-999.0
2999	3	2.714	2.469	34.923	-999.0
2488	4	3.220	3.017	34.949	-999.0
2000	6	3.516	3.356	34.958	-999.0
1600	8	3.905	3.777	34.980	-999.0
1400	9	4.253	4.139	35.001	-999.0
1211	10	4.553	4.454	35.007	-999.0
1000	14	5.862	5.771	35.068	-999.0
840	15	8.673	8.580	35.178	-999.0
699	16	12.321	12.226	35.594	-999.0
549	18	16.086	15.997	36.192	-999.0
400	20	17.986	17.916	36.557	-999.0
250	21	19.305	19.259	36.691	-999.0
103	22	23.264	23.242	36.837	-999.0
2	24	24.680	24.680	36.598	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 33 (CTD033)  
 Latitude 26.499 N Longitude 76.742 W  
 29-Feb-2012 23:51 Z

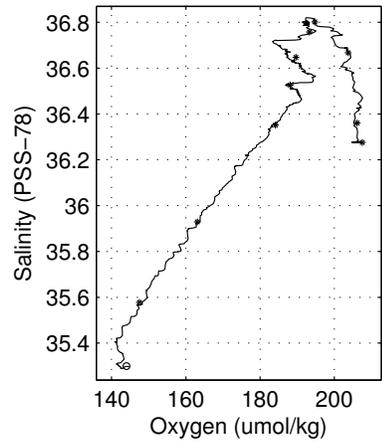
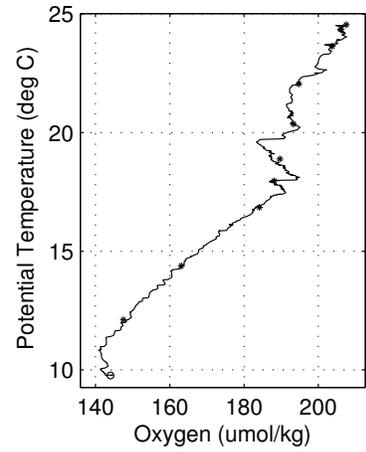
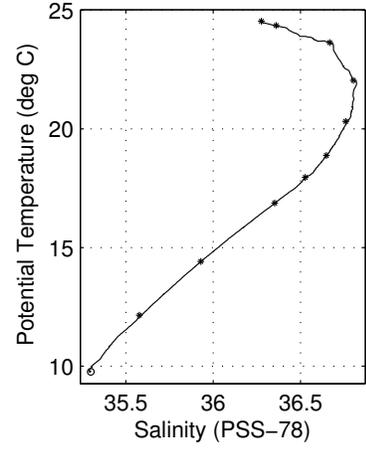
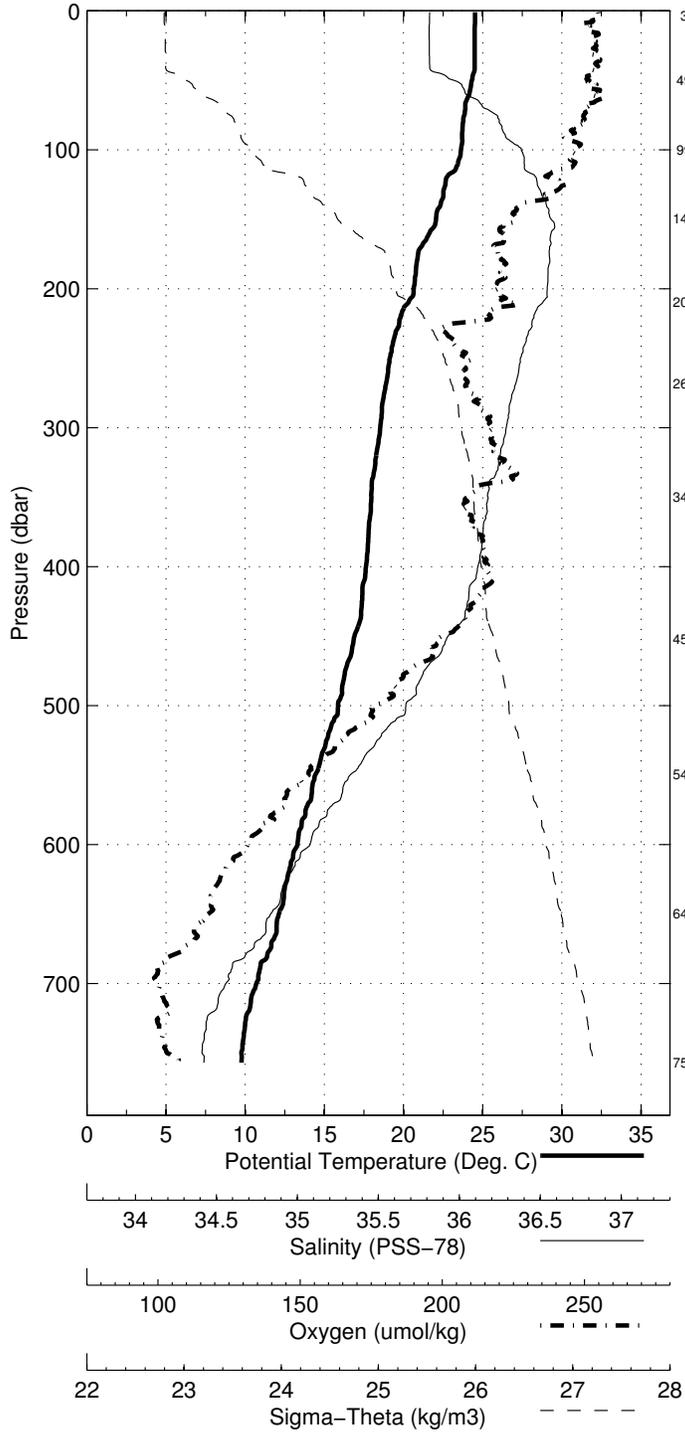


Abaco February - March 2012 R/V Brown  
 CTD Station 34 (CTD034)  
 Latitude 26.434N Longitude 78.667W  
 01-Mar-2012 14:54Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	24.522	24.521	36.278	207.0	0.003	24.453
10	24.508	24.506	36.276	205.0	0.035	24.456
20	24.499	24.494	36.275	206.2	0.069	24.459
30	24.499	24.493	36.276	206.3	0.104	24.460
50	24.327	24.316	36.384	205.7	0.173	24.595
75	23.855	23.839	36.568	204.8	0.254	24.877
100	23.648	23.627	36.675	203.7	0.330	25.021
125	22.671	22.646	36.745	202.2	0.401	25.360
150	22.083	22.053	36.805	194.7	0.465	25.575
200	20.684	20.646	36.788	192.1	0.576	25.952
250	19.172	19.127	36.672	187.7	0.674	26.267
300	18.581	18.528	36.610	190.5	0.764	26.373
400	17.697	17.628	36.486	190.4	0.934	26.503
500	15.944	15.864	36.174	173.4	1.095	26.682
600	13.382	13.296	35.757	154.8	1.236	26.919
700	10.792	10.704	35.392	141.4	1.356	27.135

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
757	2	9.856	9.767	35.299	144.0
650	3	12.234	12.146	35.578	147.5
549	4	14.497	14.414	35.929	163.1
452	6	16.953	16.877	36.351	184.1
350	8	18.020	17.959	36.526	188.1
268	9	18.931	18.883	36.648	189.6
209	10	20.357	20.317	36.758	193.2
150	14	22.078	22.048	36.802	194.7
100	15	23.665	23.644	36.667	203.7
50	16	24.369	24.358	36.360	206.1
3	18	24.548	24.548	36.276	207.5

Abaco February – March 2013 R/V Brown  
 CTD Station 34 (CTD034)  
 Latitude 26.434 N Longitude 78.667 W  
 01-Mar-2012 14:54 Z

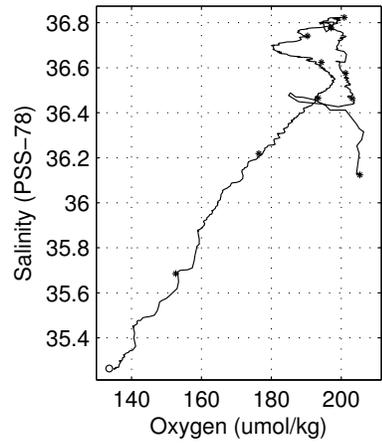
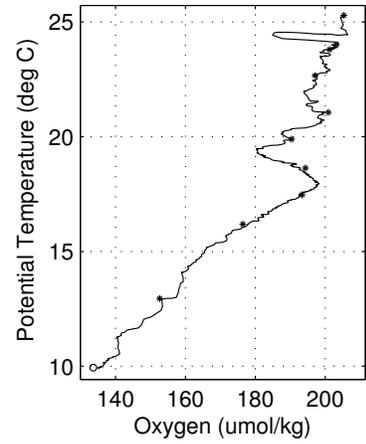
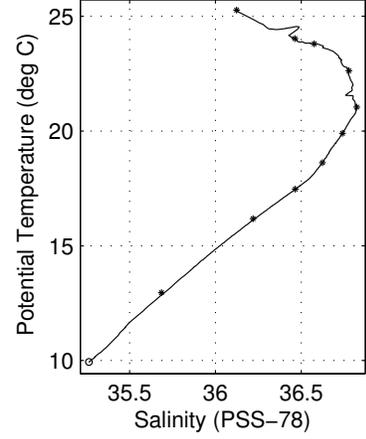
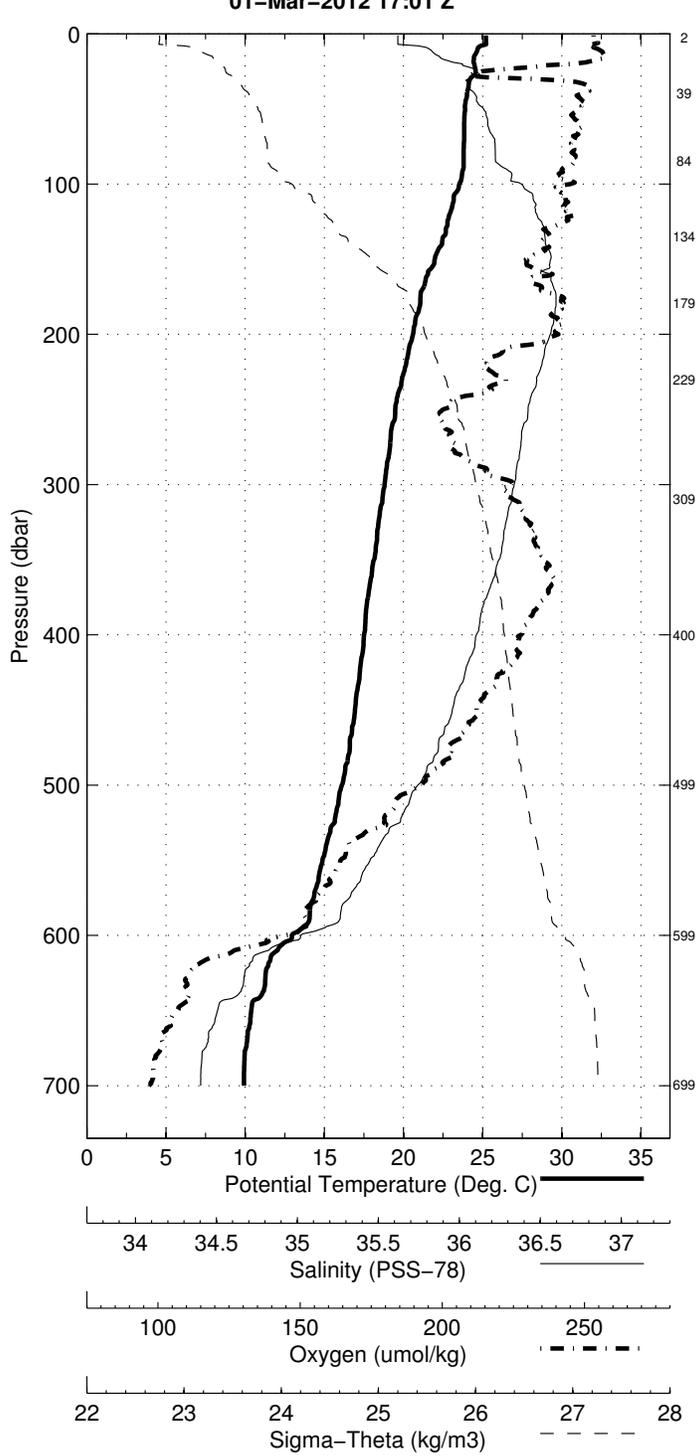


Abaco February - March 2012 R/V Brown  
 CTD Station 35 (CTD035)  
 Latitude 26.336N Longitude 78.716W  
 01-Mar-2012 17:01Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.204	25.204	36.129	204.4	0.004	24.133
10	24.689	24.687	36.266	205.1	0.037	24.394
20	24.480	24.476	36.412	201.2	0.072	24.568
30	24.226	24.220	36.438	194.6	0.105	24.665
50	23.900	23.889	36.506	202.3	0.169	24.815
75	23.819	23.804	36.556	201.7	0.247	24.878
100	23.540	23.519	36.672	200.8	0.323	25.050
125	22.808	22.783	36.760	199.9	0.393	25.332
150	22.000	21.970	36.800	193.8	0.458	25.595
200	20.638	20.600	36.798	198.9	0.570	25.973
250	19.527	19.482	36.700	180.8	0.670	26.196
300	18.859	18.805	36.639	191.8	0.762	26.325
400	17.576	17.508	36.473	193.1	0.934	26.523
500	16.184	16.103	36.216	177.4	1.094	26.660
600	13.042	12.958	35.702	156.0	1.239	26.946
700	10.013	9.929	35.263	135.1	1.349	27.169

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
700	2	10.022	9.939	35.263	133.7
600	3	13.042	12.957	35.686	152.7
500	4	16.260	16.178	36.219	176.4
400	6	17.537	17.469	36.465	193.3
310	8	18.673	18.618	36.624	194.3
230	9	19.946	19.903	36.741	190.3
180	10	21.081	21.046	36.823	200.9
135	14	22.652	22.625	36.777	197.1
85	15	23.817	23.799	36.576	201.2
40	16	24.039	24.030	36.463	203.1
3	18	25.276	25.276	36.124	205.3

Abaco February – March 2013 R/V Brown  
 CTD Station 35 (CTD035)  
 Latitude 26.336 N Longitude 78.716 W  
 01-Mar-2012 17:01 Z

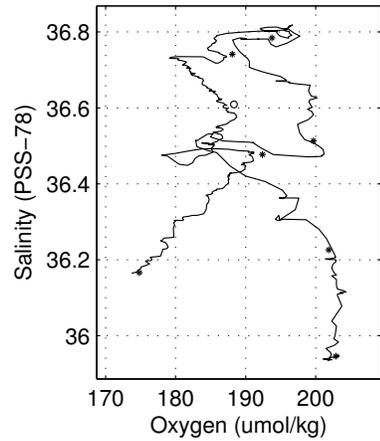
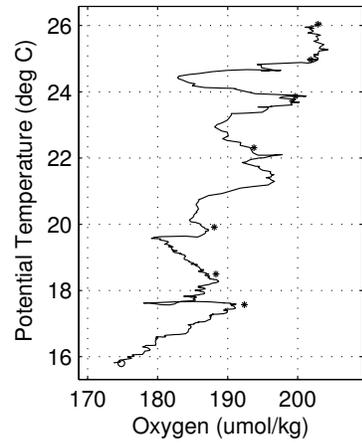
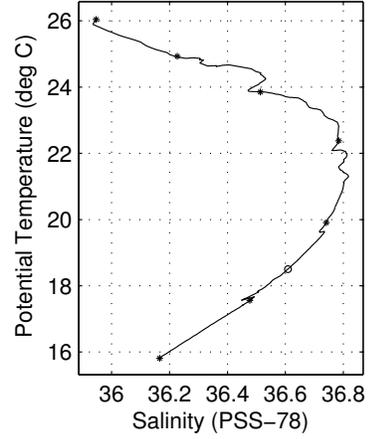
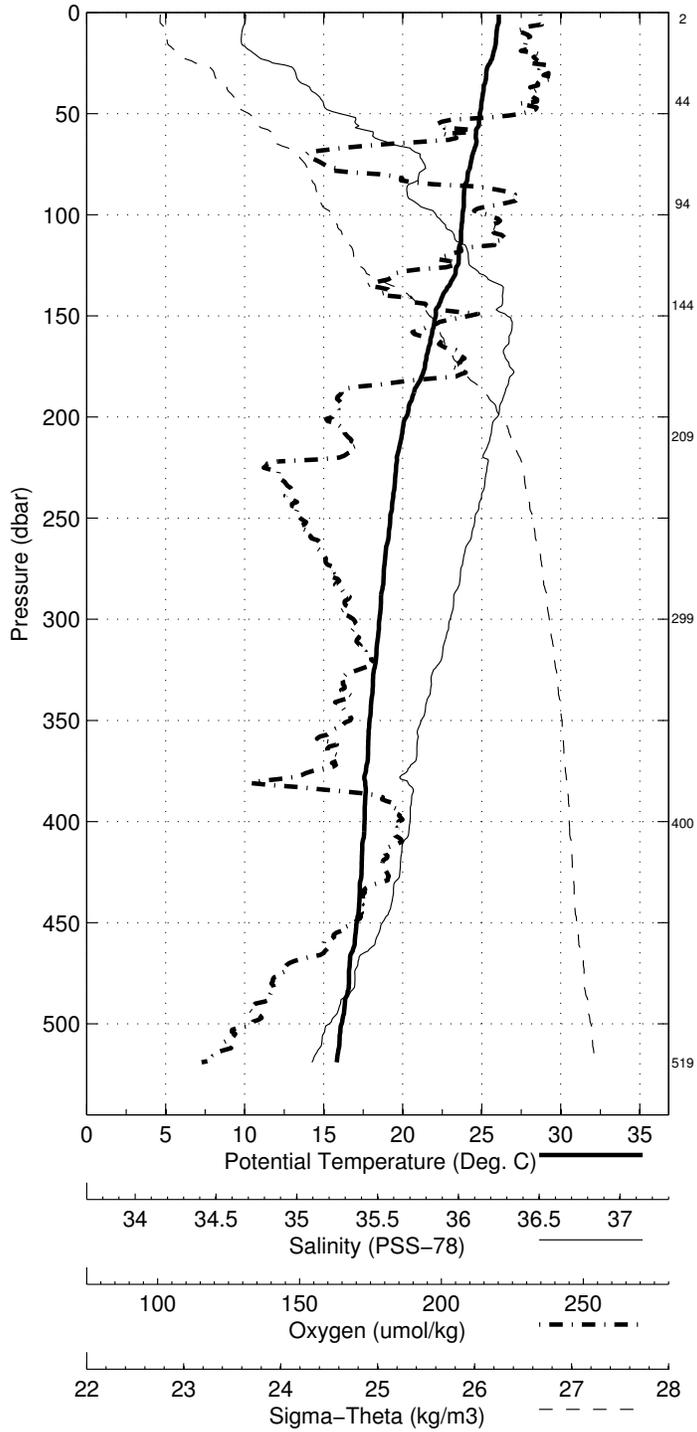


Abaco February - March 2012 R/V Brown  
 CTD Station 36 (CTD036)  
 Latitude 26.248N Longitude 78.762W  
 01-Mar-2012 20:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.079	26.079	35.950	203.2	0.004	23.726
10	25.935	25.933	35.938	201.7	0.042	23.762
20	25.745	25.741	35.975	202.7	0.083	23.850
30	25.297	25.290	36.112	203.9	0.122	24.093
50	24.880	24.869	36.257	201.5	0.196	24.331
75	24.302	24.286	36.529	184.3	0.282	24.714
100	23.808	23.787	36.567	198.6	0.362	24.891
125	23.498	23.472	36.675	195.7	0.437	25.067
150	22.119	22.089	36.797	197.0	0.504	25.559
200	20.255	20.218	36.764	185.1	0.617	26.050
250	19.256	19.211	36.692	182.3	0.713	26.261
300	18.579	18.526	36.612	186.9	0.803	26.375
400	17.653	17.584	36.482	190.8	0.973	26.511
500	16.215	16.134	36.221	178.1	1.135	26.657

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
519	2	15.892	15.809	36.166	174.8
401	3	17.631	17.562	36.477	192.4
300	4	18.556	18.503	36.609	188.3
209	6	19.943	19.904	36.741	188.1
145	8	22.405	22.376	36.784	193.7
94	9	23.871	23.851	36.513	199.7
44	10	24.939	24.930	36.226	201.9
3	14	26.039	26.038	35.946	202.9

Abaco February – March 2013 R/V Brown  
 CTD Station 36 (CTD036)  
 Latitude 26.248 N Longitude 78.762 W  
 01-Mar-2012 20:06 Z

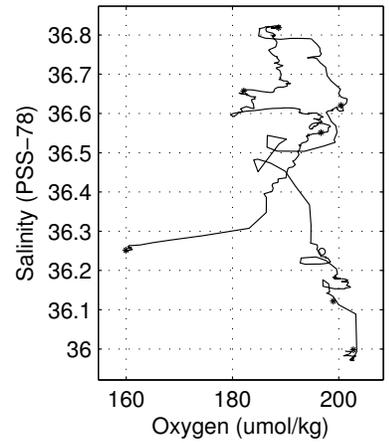
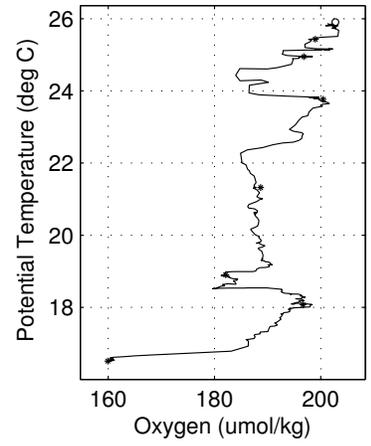
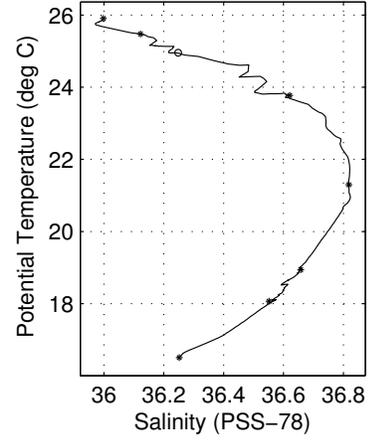
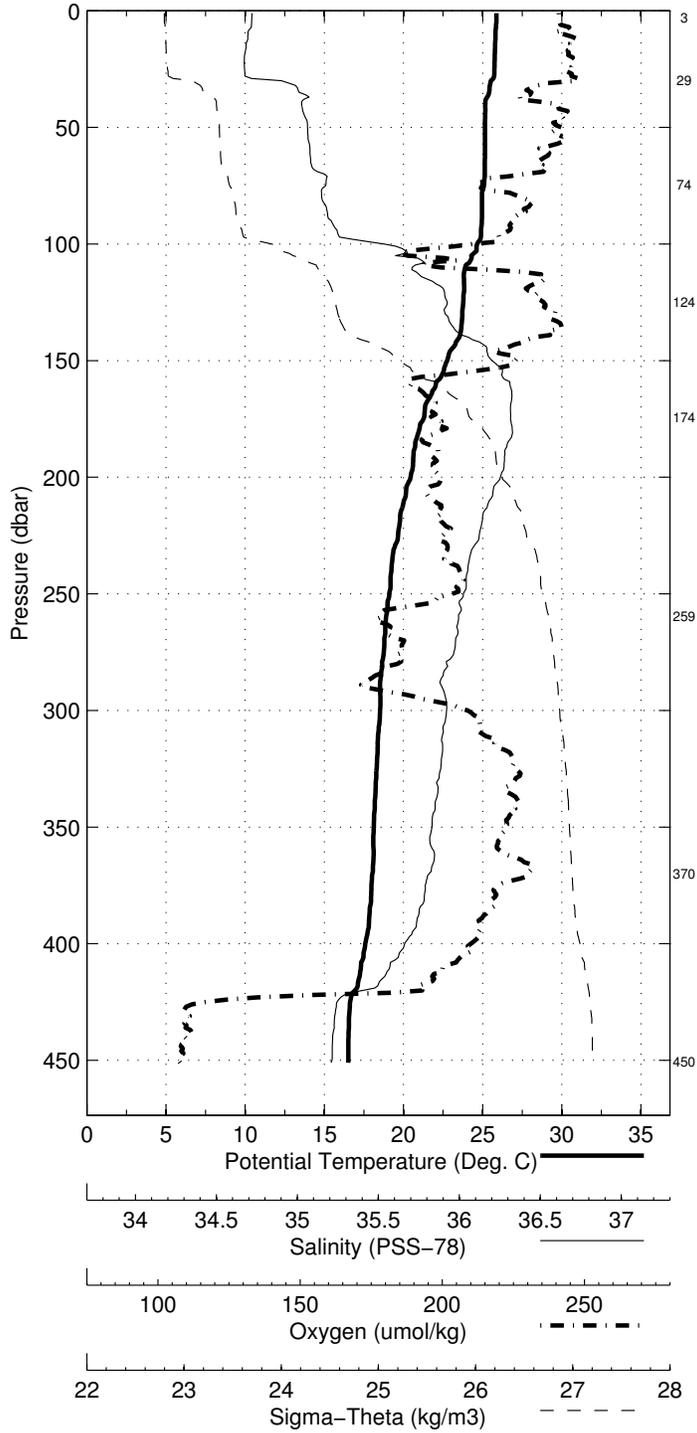


Abaco February - March 2012 R/V Brown  
 CTD Station 37 (CTD037)  
 Latitude 26.166N Longitude 78.800W  
 01-Mar-2012 21:23Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.866	25.866	35.996	201.2	0.004	23.827
10	25.812	25.809	35.984	201.7	0.041	23.835
20	25.770	25.765	35.972	202.8	0.081	23.840
30	25.518	25.511	36.090	203.2	0.122	24.008
50	25.159	25.148	36.172	201.5	0.197	24.182
75	25.091	25.074	36.230	192.9	0.291	24.248
100	24.668	24.646	36.416	191.8	0.382	24.519
125	23.805	23.778	36.617	199.6	0.461	24.932
150	22.784	22.754	36.759	196.5	0.535	25.340
200	20.481	20.443	36.785	188.2	0.649	26.005
250	19.149	19.103	36.668	189.6	0.745	26.270
300	18.573	18.519	36.614	191.3	0.835	26.378
400	17.651	17.582	36.481	191.6	1.006	26.510

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
451	2	16.579	16.504	36.252	159.9
370	3	18.131	18.066	36.551	196.7
260	4	18.987	18.940	36.657	182.1
174	6	21.332	21.298	36.818	188.7
125	8	23.799	23.773	36.621	200.4
75	9	24.971	24.955	36.248	196.8
30	10	25.483	25.476	36.122	199.0
3	14	25.906	25.905	35.998	202.8

Abaco February – March 2013 R/V Brown  
 CTD Station 37 (CTD037)  
 Latitude 26.166 N Longitude 78.800 W  
 01-Mar-2012 21:23 Z

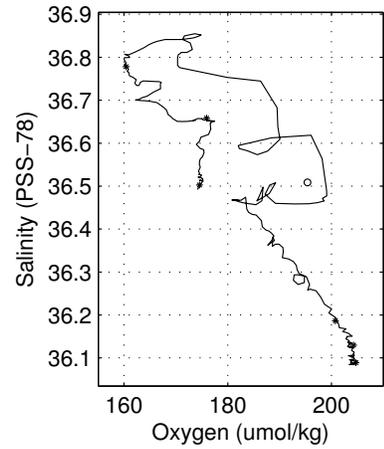
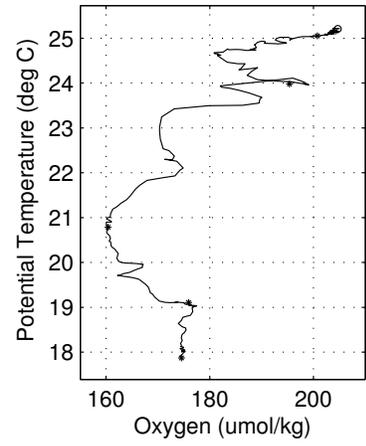
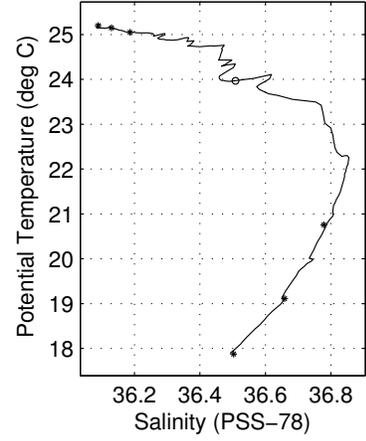
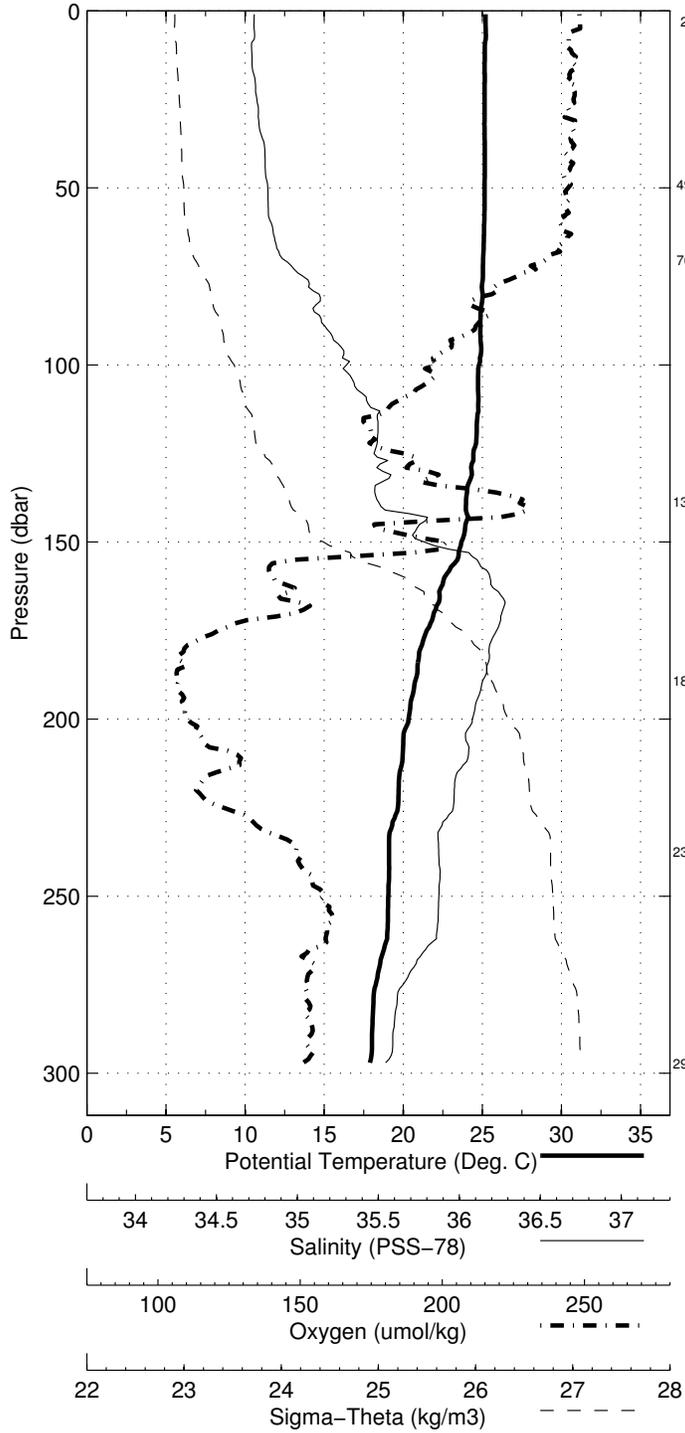


Abaco February - March 2012 R/V Brown  
 CTD Station 38 (CTD038)  
 Latitude 26.067N Longitude 78.850W  
 01-Mar-2012 22:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.209	25.209	36.093	204.9	0.004	24.104
10	25.164	25.162	36.085	203.4	0.038	24.112
20	25.156	25.152	36.096	203.5	0.076	24.123
30	25.149	25.143	36.105	203.3	0.114	24.133
50	25.152	25.141	36.134	203.6	0.190	24.156
75	25.051	25.035	36.242	197.9	0.283	24.269
100	24.808	24.786	36.373	189.0	0.373	24.445
125	24.458	24.431	36.457	185.4	0.460	24.616
150	23.711	23.680	36.609	190.1	0.540	24.955
200	20.371	20.334	36.756	161.2	0.659	26.012
250	19.098	19.053	36.654	176.5	0.755	26.272

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
297	2	17.927	17.875	36.503	174.6
238	3	19.155	19.112	36.658	175.9
189	4	20.794	20.758	36.778	160.4
139	6	23.996	23.967	36.509	195.4
71	8	25.065	25.050	36.186	200.7
49	9	25.160	25.150	36.130	204.3
3	10	25.198	25.197	36.089	204.7

Abaco February – March 2013 R/V Brown  
 CTD Station 38 (CTD038)  
 Latitude 26.067 N Longitude 78.850 W  
 01-Mar-2012 22:55 Z

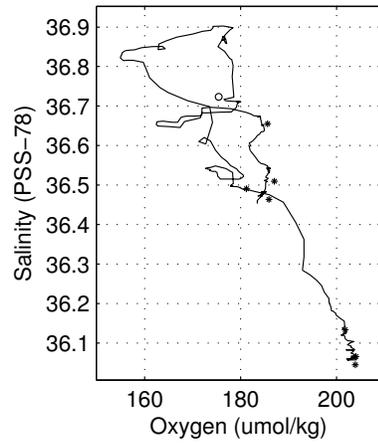
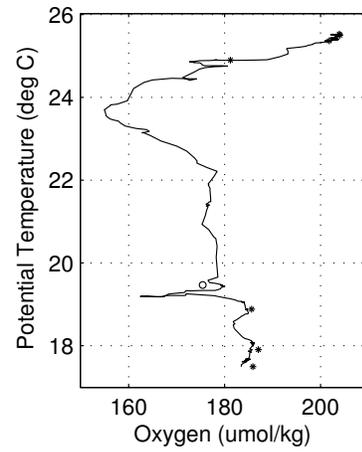
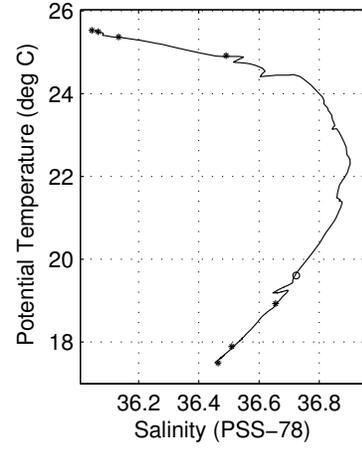
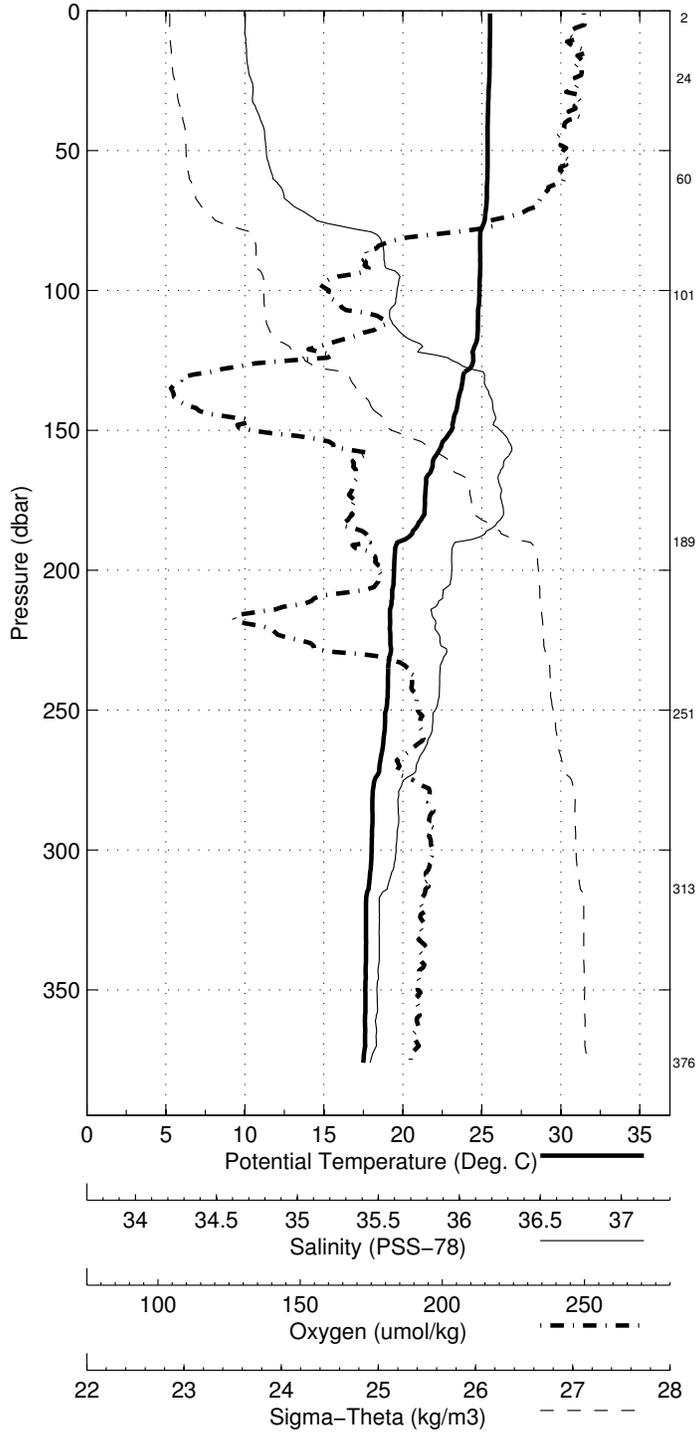


Abaco February - March 2012 R/V Brown  
 CTD Station 39 (CTD039)  
 Latitude 26.055N Longitude 79.248W  
 02-Mar-2012 04:06Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.521	25.521	36.059	204.0	0.004	23.982
10	25.513	25.511	36.060	203.3	0.039	23.986
20	25.498	25.493	36.067	203.0	0.078	23.996
30	25.433	25.426	36.082	203.5	0.117	24.028
50	25.375	25.364	36.125	201.6	0.195	24.080
75	25.194	25.177	36.285	192.9	0.290	24.258
100	24.869	24.847	36.539	173.7	0.376	24.552
125	24.489	24.462	36.714	169.0	0.460	24.801
150	23.106	23.075	36.865	164.5	0.532	25.327
200	19.481	19.445	36.712	179.5	0.643	26.215
250	18.984	18.939	36.660	184.3	0.735	26.307
300	18.078	18.026	36.536	186.0	0.822	26.443

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
376	2	17.558	17.494	36.464	185.9
314	3	17.948	17.893	36.510	187.0
251	4	18.972	18.927	36.655	185.6
190	6	19.642	19.607	36.723	175.4
101	8	24.940	24.918	36.491	181.2
60	9	25.382	25.369	36.133	201.8
24	10	25.503	25.497	36.066	204.0
2	14	25.526	25.526	36.045	203.9

Abaco February – March 2013 R/V Brown  
 CTD Station 39 (CTD039)  
 Latitude 26.055 N Longitude 79.248 W  
 02-Mar-2012 04:06 Z

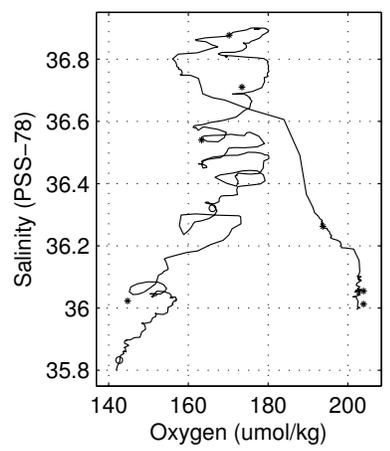
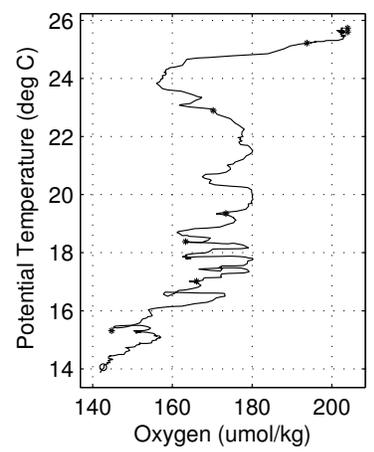
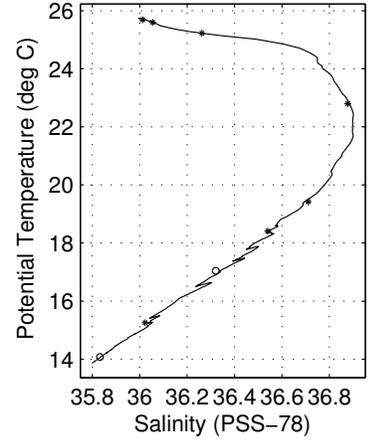
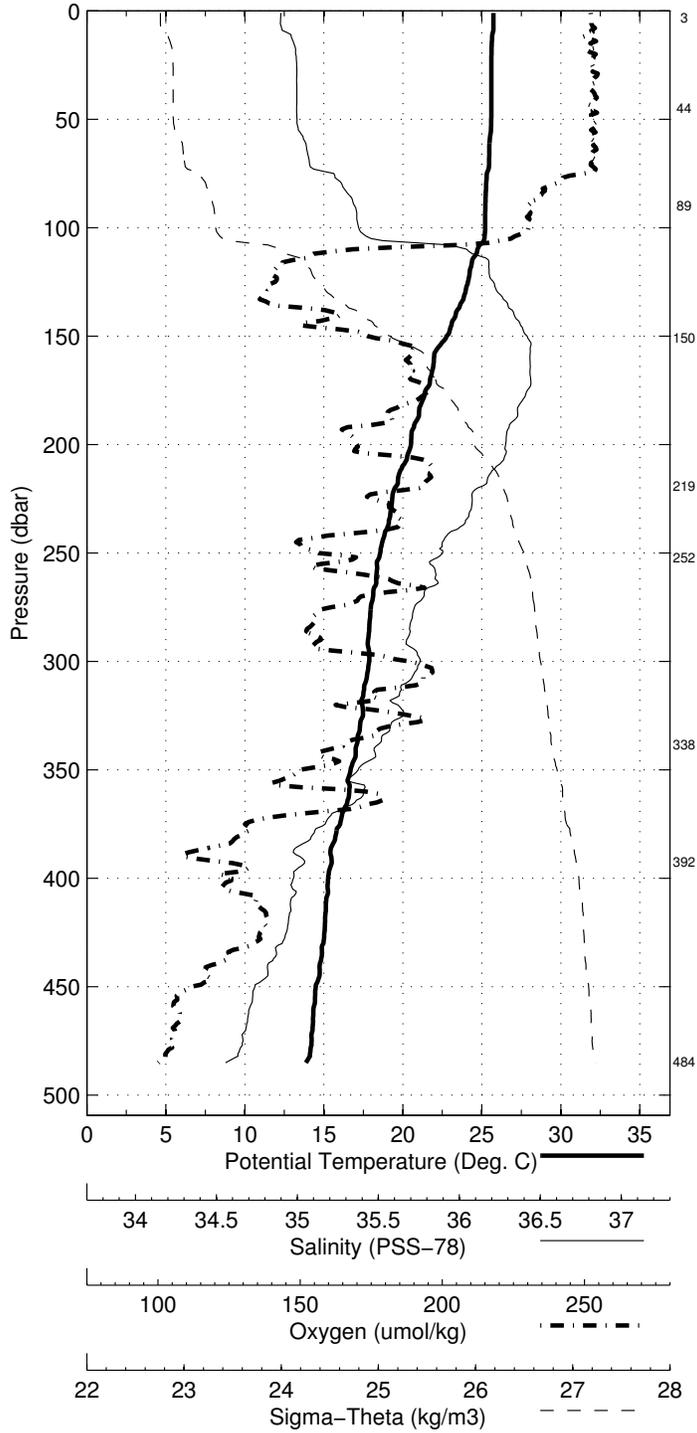


Abaco February - March 2012 R/V Brown  
 CTD Station 40 (CTD040)  
 Latitude 26.047N Longitude 79.313W  
 02-Mar-2012 05:42Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.738	25.737	35.999	202.3	0.004	23.869
10	25.699	25.697	36.021	202.6	0.040	23.898
20	25.615	25.611	36.053	203.0	0.080	23.949
30	25.606	25.599	36.056	203.2	0.119	23.956
50	25.607	25.596	36.057	202.8	0.199	23.957
75	25.331	25.314	36.190	201.4	0.297	24.144
100	25.230	25.208	36.279	193.6	0.390	24.245
125	24.144	24.117	36.765	158.2	0.473	24.943
150	22.804	22.773	36.887	171.2	0.544	25.431
200	20.547	20.509	36.809	169.6	0.657	26.006
250	18.610	18.565	36.582	164.3	0.752	26.342
300	17.920	17.868	36.501	177.0	0.837	26.455
400	15.339	15.276	36.044	152.1	0.995	26.716

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
485	2	14.147	14.075	35.832	142.7
392	3	15.319	15.258	36.023	144.8
338	4	17.099	17.042	36.321	166.0
252	6	18.456	18.412	36.540	163.3
219	8	19.462	19.422	36.711	173.4
151	9	22.835	22.804	36.877	170.2
90	10	25.246	25.226	36.262	193.7
45	14	25.613	25.603	36.055	204.0
3	15	25.694	25.693	36.012	204.0

Abaco February – March 2013 R/V Brown  
 CTD Station 40 (CTD040)  
 Latitude 26.047 N Longitude 79.313 W  
 02-Mar-2012 05:42 Z

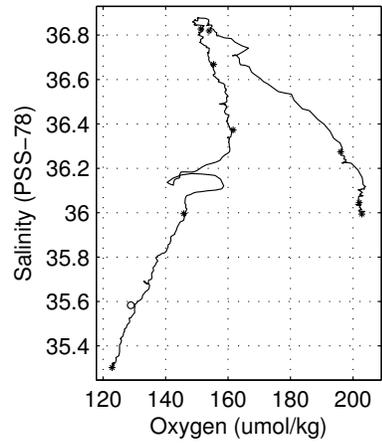
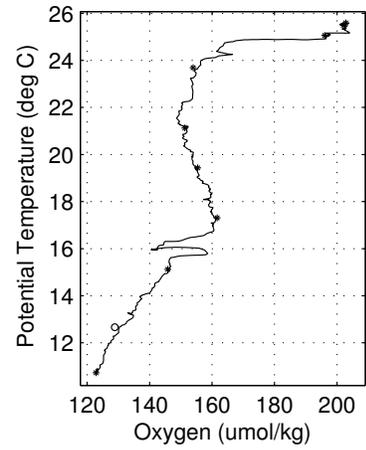
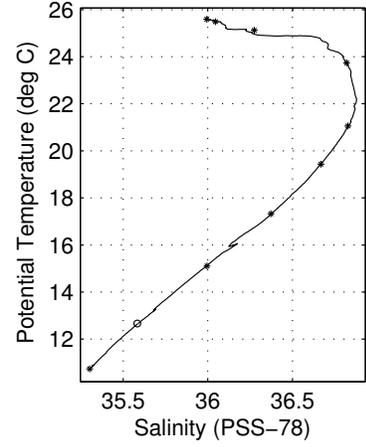
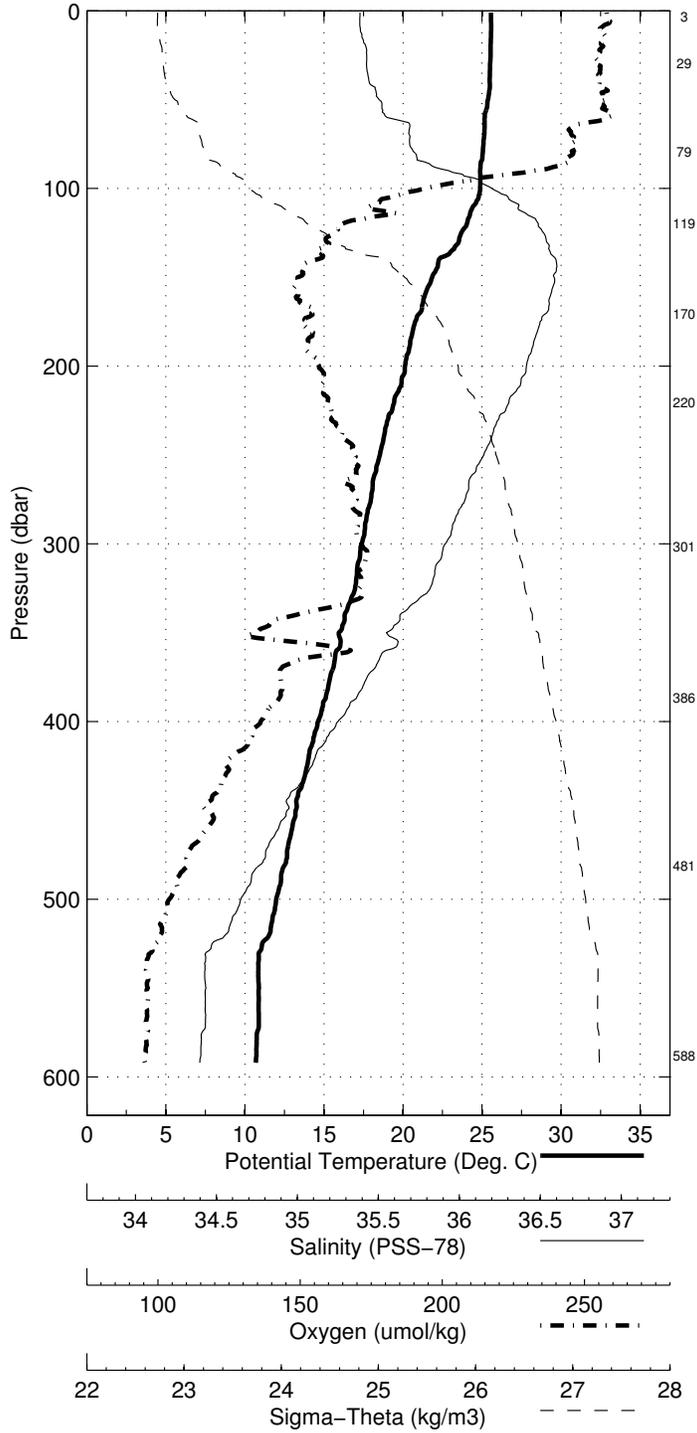


Abaco February - March 2012 R/V Brown  
 CTD Station 41 (CTD041)  
 Latitude 26.048N Longitude 79.402W  
 02-Mar-2012 07:22Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.570	25.569	36.007	203.1	0.004	23.928
10	25.575	25.572	36.009	201.9	0.040	23.928
20	25.547	25.542	36.033	202.5	0.079	23.955
30	25.516	25.509	36.036	201.2	0.119	23.968
50	25.390	25.379	36.092	203.0	0.197	24.050
75	25.102	25.086	36.227	197.4	0.291	24.243
100	24.902	24.880	36.591	171.3	0.380	24.581
125	23.709	23.683	36.821	155.5	0.459	25.115
150	21.875	21.845	36.867	149.4	0.524	25.681
200	20.161	20.124	36.744	153.1	0.632	26.060
250	18.584	18.540	36.556	159.2	0.727	26.329
300	17.423	17.372	36.385	160.5	0.812	26.488
400	14.685	14.624	35.909	143.0	0.965	26.755
500	12.048	11.981	35.479	127.1	1.096	26.965

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
588	2	10.808	10.734	35.302	122.9
481	3	12.732	12.666	35.584	128.8
387	4	15.165	15.105	35.995	145.8
302	6	17.376	17.325	36.373	161.6
221	8	19.478	19.438	36.668	155.4
170	9	21.090	21.057	36.827	151.3
120	10	23.763	23.738	36.819	153.9
80	14	25.140	25.122	36.274	196.0
30	15	25.492	25.486	36.045	202.0
3	16	25.595	25.594	35.995	202.9

Abaco February – March 2013 R/V Brown  
 CTD Station 41 (CTD041)  
 Latitude 26.048 N Longitude 79.402 W  
 02-Mar-2012 07:22 Z

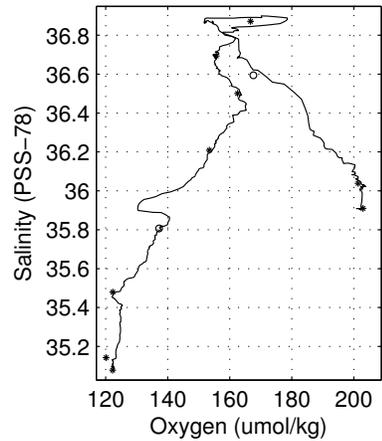
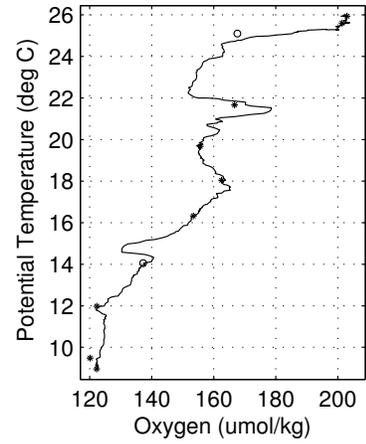
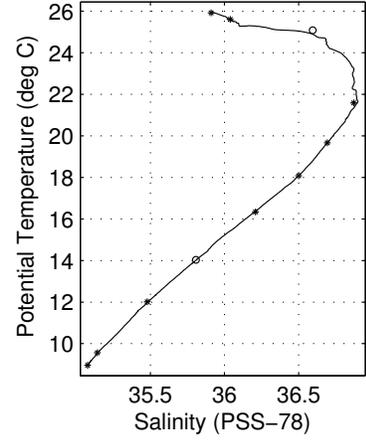
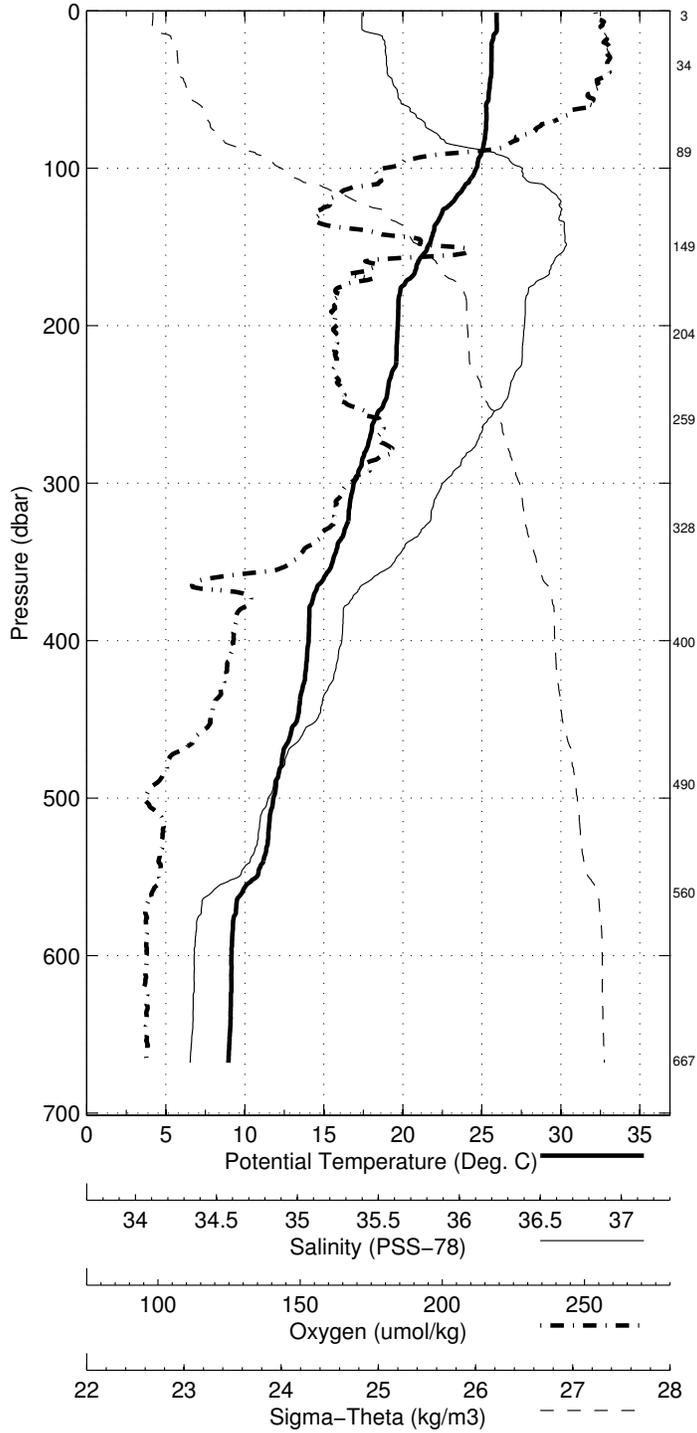


Abaco February - March 2012 R/V Brown  
 CTD Station 42 (CTD042)  
 Latitude 26.038N Longitude 79.475W  
 02-Mar-2012 08:59Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.932	25.931	35.910	200.9	0.004	23.741
10	25.945	25.943	35.908	201.7	0.042	23.737
20	25.637	25.632	36.020	202.2	0.082	23.917
30	25.620	25.613	36.027	203.4	0.122	23.929
50	25.482	25.471	36.079	200.5	0.201	24.013
75	25.281	25.264	36.231	190.4	0.297	24.191
100	24.678	24.656	36.685	163.9	0.385	24.720
125	22.802	22.777	36.872	153.3	0.458	25.419
150	21.587	21.557	36.893	176.5	0.519	25.781
200	19.716	19.679	36.695	155.6	0.621	26.140
250	18.810	18.765	36.591	157.5	0.716	26.298
300	16.936	16.886	36.299	158.0	0.800	26.539
400	14.097	14.038	35.812	137.6	0.947	26.807
500	11.872	11.806	35.455	122.0	1.076	26.979
600	9.217	9.149	35.097	122.3	1.187	27.170

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
667	2	9.030	8.956	35.077	122.3
560	3	9.625	9.560	35.143	120.2
491	4	12.081	12.015	35.479	122.3
401	6	14.091	14.032	35.807	137.2
329	8	16.393	16.340	36.209	153.4
260	9	18.126	18.081	36.500	162.6
205	10	19.704	19.667	36.694	155.6
149	14	21.612	21.583	36.872	166.7
90	15	25.100	25.080	36.594	167.6
35	16	25.613	25.605	36.038	201.4
3	18	25.917	25.916	35.910	203.0

Abaco February – March 2013 R/V Brown  
 CTD Station 42 (CTD042)  
 Latitude 26.038 N Longitude 79.475 W  
 02-Mar-2012 08:59 Z

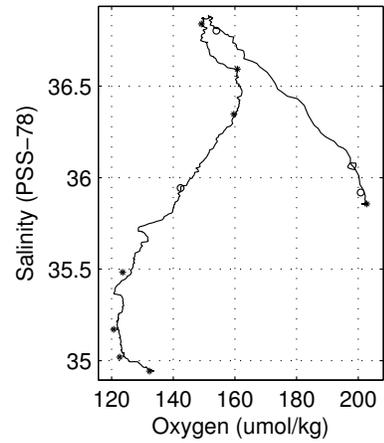
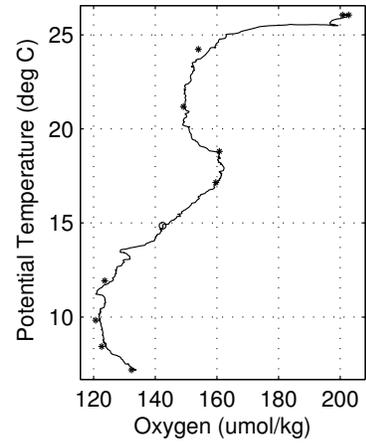
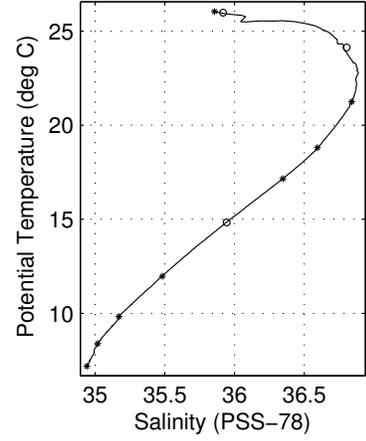
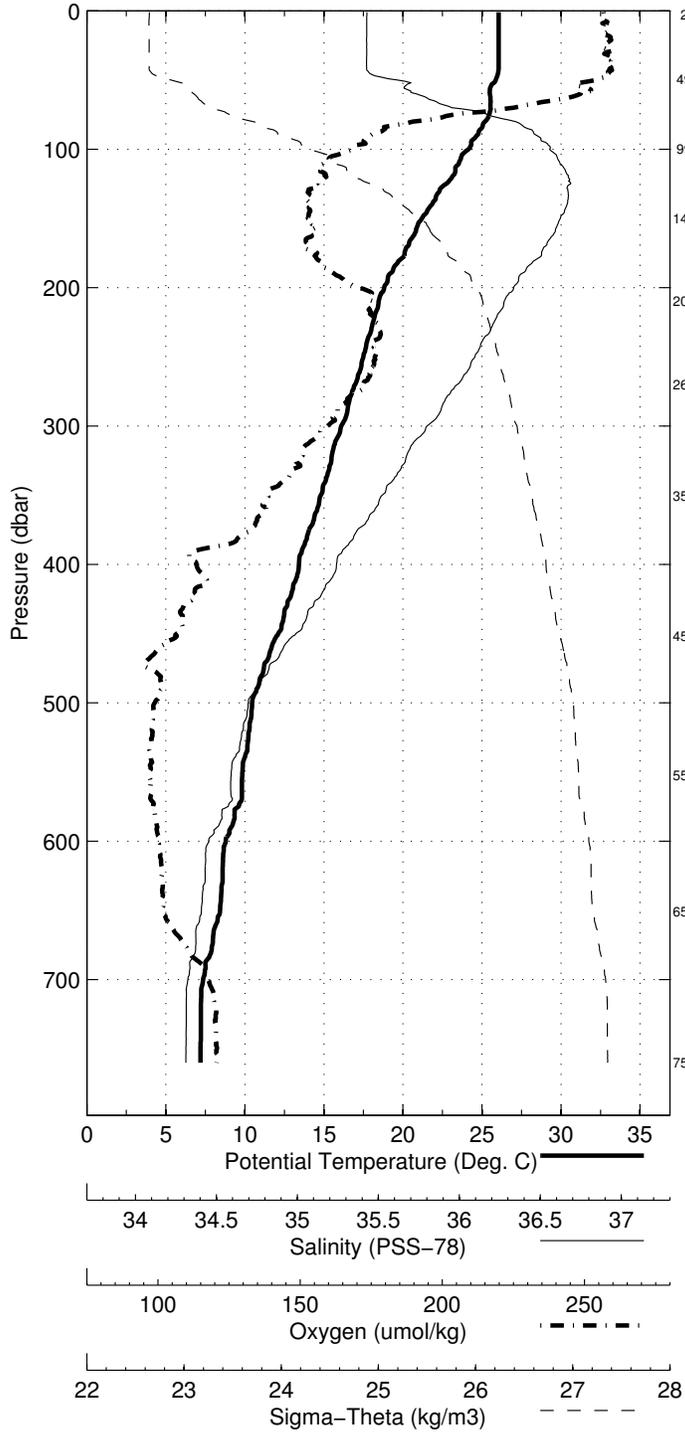


Abaco February - March 2012 R/V Brown  
 CTD Station 43 (CTD043)  
 Latitude 26.045N Longitude 79.562W  
 02-Mar-2012 10:49Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.051	26.051	35.858	201.5	0.004	23.665
10	26.057	26.054	35.857	202.0	0.042	23.663
20	26.058	26.054	35.856	202.7	0.085	23.663
30	26.059	26.052	35.856	201.9	0.127	23.663
50	25.874	25.863	36.010	200.2	0.211	23.839
75	25.469	25.452	36.469	175.2	0.308	24.313
100	24.162	24.141	36.780	157.3	0.390	24.948
125	22.770	22.744	36.887	151.4	0.460	25.440
150	21.222	21.193	36.833	149.5	0.519	25.837
200	18.851	18.815	36.599	158.5	0.619	26.291
250	17.541	17.499	36.402	161.3	0.704	26.470
300	16.138	16.090	36.160	153.0	0.783	26.620
400	13.476	13.419	35.705	129.9	0.924	26.853
500	10.524	10.463	35.259	122.6	1.045	27.073
600	8.862	8.796	35.059	123.0	1.151	27.197
700	7.428	7.358	34.954	132.0	1.245	27.332

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
760	2	7.263	7.188	34.942	132.3
651	3	8.461	8.391	35.019	122.6
553	4	9.897	9.832	35.171	120.7
452	6	12.032	11.972	35.483	123.6
351	8	14.892	14.838	35.943	142.4
270	9	17.202	17.156	36.346	159.7
210	10	18.846	18.809	36.594	160.8
150	14	21.270	21.240	36.839	149.1
99	15	24.155	24.134	36.803	154.0
50	16	25.994	25.983	35.918	200.8
3	18	26.045	26.044	35.856	202.8

Abaco February – March 2013 R/V Brown  
 CTD Station 43 (CTD043)  
 Latitude 26.045 N Longitude 79.562 W  
 02-Mar-2012 10:49 Z

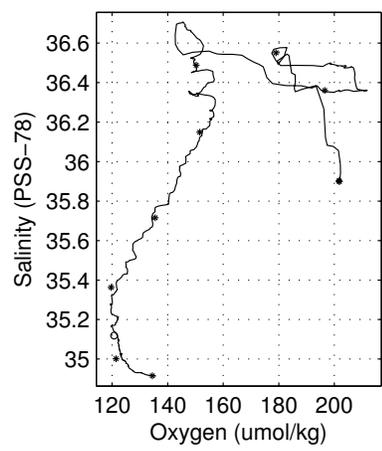
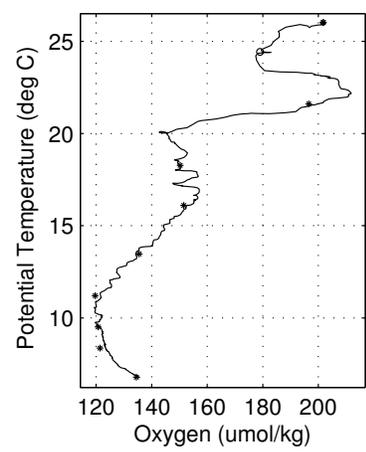
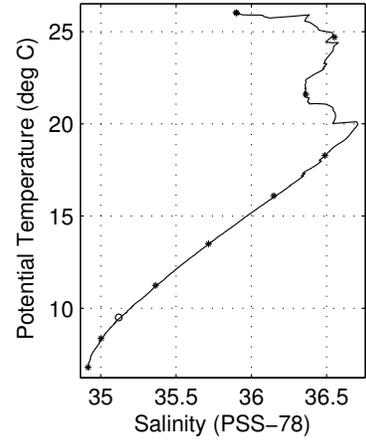
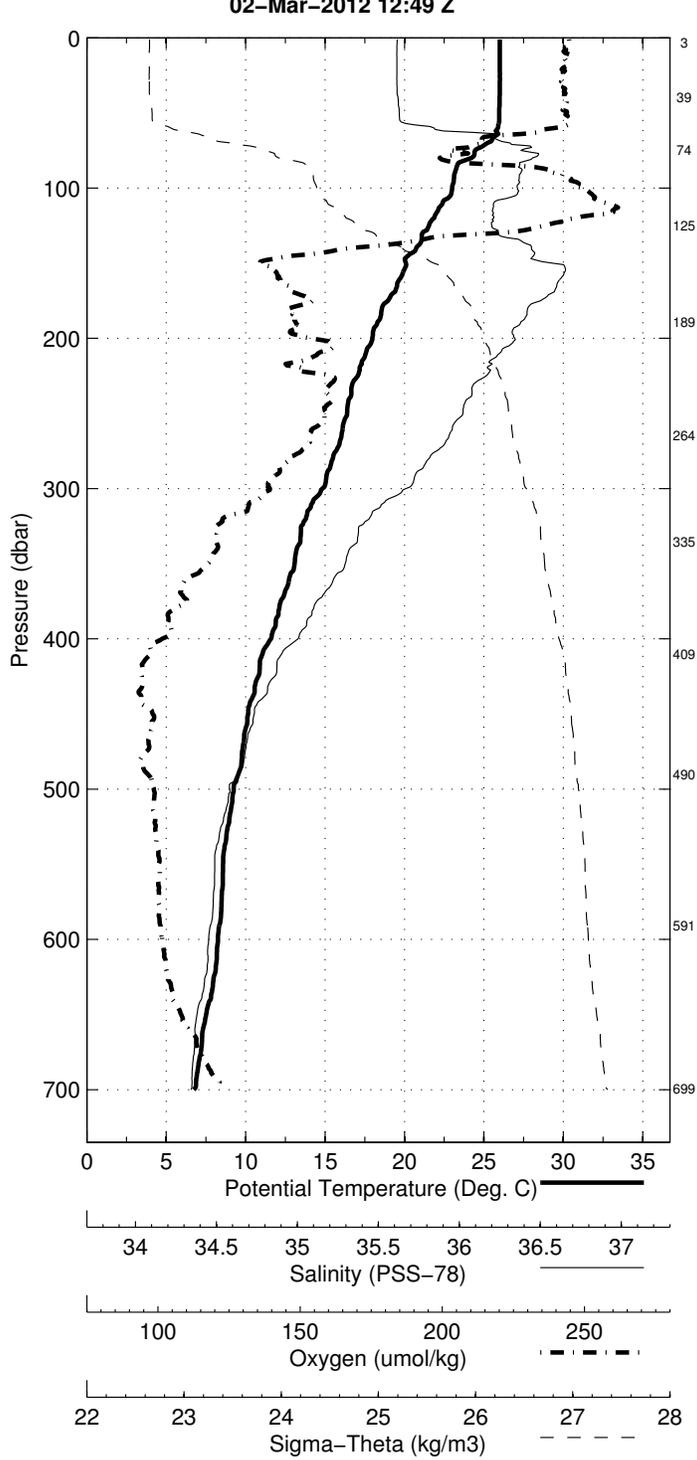


Abaco February - March 2012 R/V Brown  
 CTD Station 44 (CTD044)  
 Latitude 26.046N Longitude 79.663W  
 02-Mar-2012 12:49Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.999	25.999	35.901	202.4	0.004	23.713
10	26.007	26.005	35.899	201.6	0.042	23.710
20	26.008	26.004	35.899	201.2	0.084	23.711
30	26.011	26.004	35.899	201.5	0.125	23.711
50	25.971	25.960	35.911	202.0	0.209	23.733
75	24.455	24.439	36.493	179.8	0.306	24.641
100	23.020	22.999	36.476	205.3	0.382	25.054
125	21.564	21.540	36.354	197.6	0.452	25.376
150	20.111	20.083	36.644	142.7	0.511	25.994
200	18.016	17.981	36.464	152.4	0.603	26.398
250	16.429	16.388	36.215	156.0	0.682	26.593
300	14.869	14.824	35.941	144.7	0.755	26.737
400	11.640	11.589	35.426	123.8	0.881	26.998
500	9.305	9.249	35.098	122.2	0.988	27.154
600	8.318	8.254	34.997	123.8	1.085	27.233
700	6.802	6.735	34.913	135.7	1.174	27.387

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
699	2	6.861	6.794	34.915	134.5
591	3	8.421	8.358	35.001	121.4
490	4	9.555	9.499	35.119	120.7
410	6	11.293	11.241	35.362	119.7
335	8	13.537	13.489	35.715	135.5
264	9	16.143	16.101	36.149	151.6
189	10	18.315	18.282	36.489	150.3
125	14	21.633	21.609	36.361	196.6
75	15	24.721	24.704	36.551	179.0
40	16	26.024	26.015	35.903	201.7
3	18	26.035	26.034	35.899	201.8

Abaco February – March 2013 R/V Brown  
 CTD Station 44 (CTD044)  
 Latitude 26.046 N Longitude 79.663 W  
 02-Mar-2012 12:49 Z

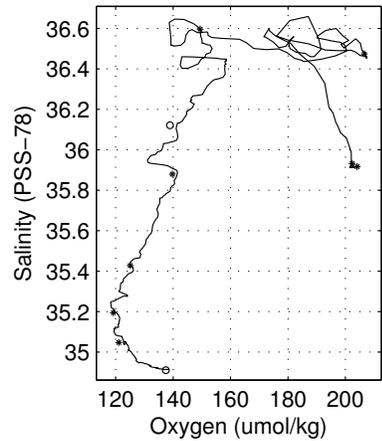
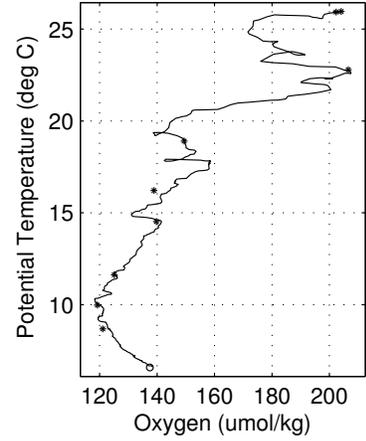
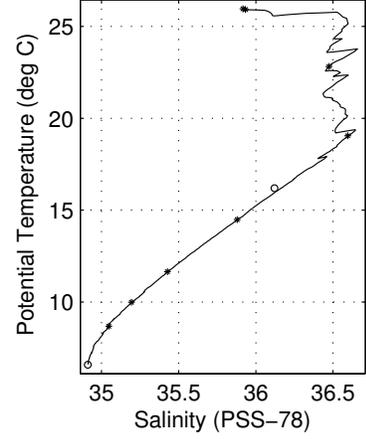
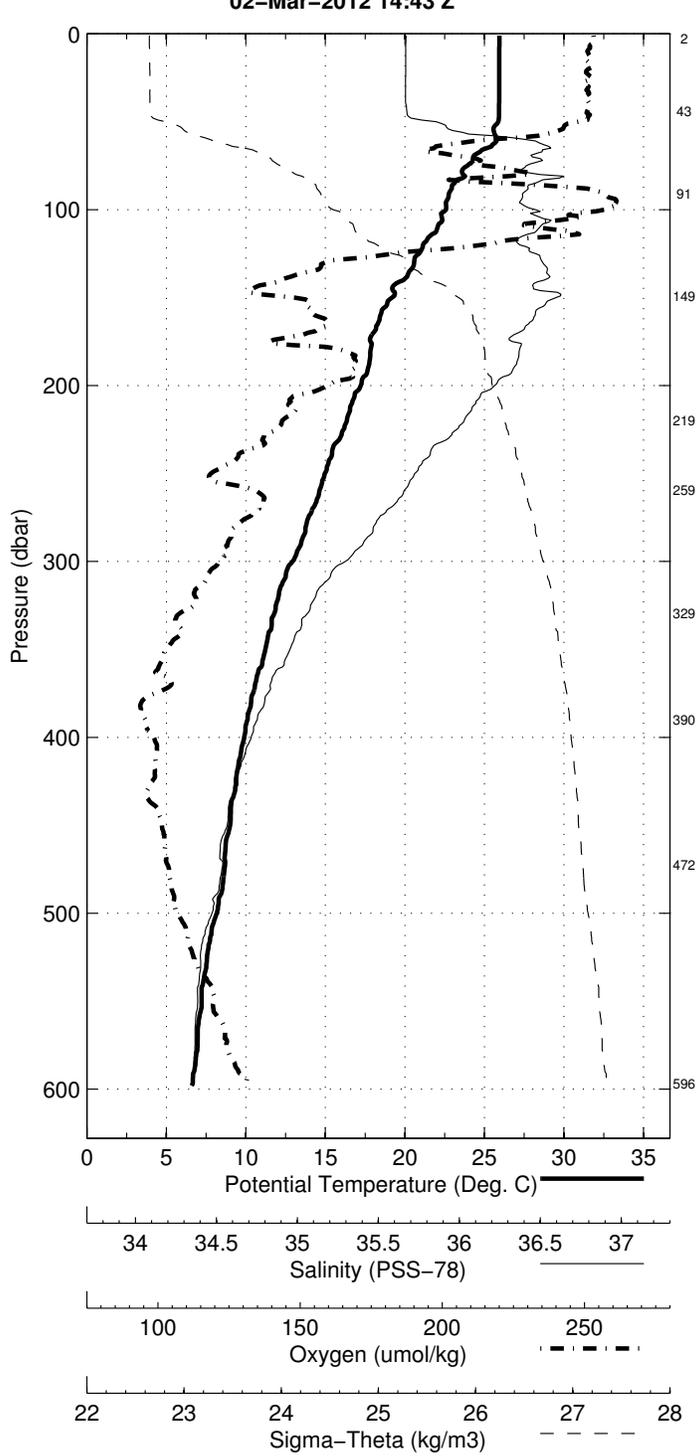


Abaco February - March 2012 R/V Brown  
 CTD Station 45 (CTD045)  
 Latitude 26.051N Longitude 79.764W  
 02-Mar-2012 14:43Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.942	25.942	35.916	203.2	0.004	23.743
10	25.935	25.933	35.915	202.0	0.041	23.745
20	25.933	25.929	35.915	202.2	0.083	23.746
30	25.934	25.927	35.914	202.3	0.125	23.746
50	25.884	25.873	36.058	200.4	0.208	23.871
75	23.937	23.922	36.483	182.8	0.297	24.788
100	22.603	22.583	36.527	205.2	0.370	25.213
125	20.906	20.882	36.528	165.6	0.435	25.690
150	19.215	19.188	36.624	147.1	0.487	26.215
200	17.252	17.218	36.333	153.1	0.572	26.486
250	14.995	14.956	35.957	131.5	0.646	26.720
300	12.976	12.935	35.630	133.0	0.712	26.894
400	9.941	9.894	35.186	120.8	0.824	27.115
500	8.220	8.167	35.001	125.4	0.921	27.250

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
597	2	6.637	6.581	34.910	137.5
473	3	8.732	8.681	35.047	121.1
390	4	10.037	9.991	35.194	119.2
330	6	11.693	11.650	35.427	125.1
260	8	14.516	14.477	35.879	139.8
220	9	16.229	16.193	36.121	138.9
149	10	19.072	19.045	36.596	149.4
91	14	22.833	22.815	36.474	206.6
44	15	25.931	25.921	35.932	202.4
3	16	25.954	25.953	35.916	204.1

Abaco February – March 2013 R/V Brown  
 CTD Station 45 (CTD045)  
 Latitude 26.051 N Longitude 79.764 W  
 02-Mar-2012 14:43 Z

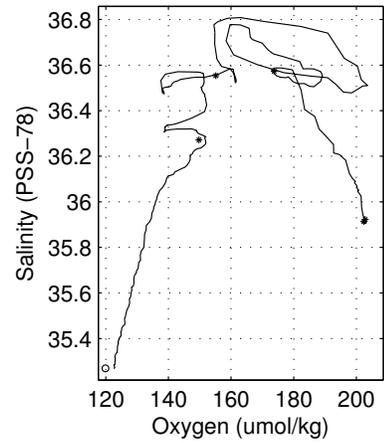
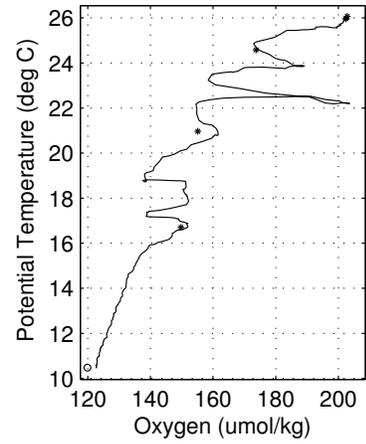
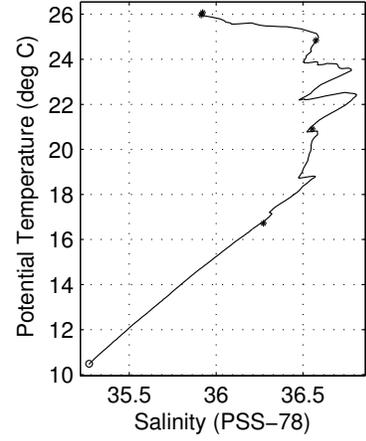
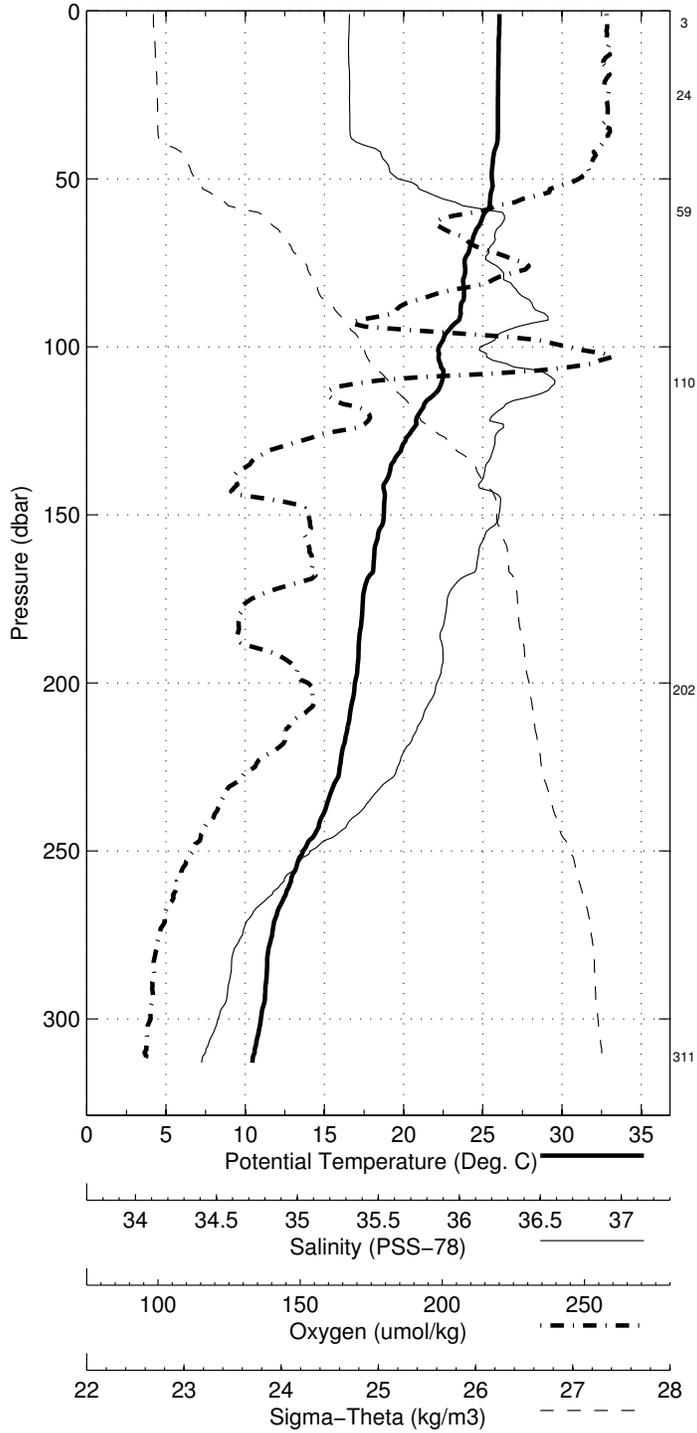


Abaco February - March 2012 R/V Brown  
 CTD Station 46 (CTD046)  
 Latitude 26.041N Longitude 79.850W  
 02-Mar-2012 16:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.048	26.048	35.912	202.6	0.004	23.707
10	26.005	26.003	35.908	203.1	0.042	23.718
20	25.975	25.971	35.913	202.7	0.083	23.731
30	25.958	25.952	35.914	202.8	0.125	23.738
50	25.582	25.570	36.124	197.8	0.206	24.016
75	23.857	23.841	36.528	188.6	0.293	24.846
100	22.240	22.220	36.481	195.9	0.366	25.282
125	20.526	20.502	36.562	156.2	0.428	25.820
150	18.770	18.743	36.564	151.1	0.477	26.283
200	16.956	16.923	36.293	150.9	0.560	26.526
250	13.680	13.644	35.743	131.0	0.633	26.836
300	11.019	10.982	35.339	123.6	0.690	27.043

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
311	2	10.524	10.486	35.269	119.8
202	3	16.754	16.721	36.272	149.7
111	4	20.927	20.906	36.554	155.1
60	6	24.849	24.836	36.574	173.7
25	8	25.973	25.967	35.914	202.4
3	9	26.067	26.066	35.922	202.8

Abaco February – March 2013 R/V Brown  
 CTD Station 46 (CTD046)  
 Latitude 26.041 N Longitude 79.850 W  
 02-Mar-2012 16:30 Z

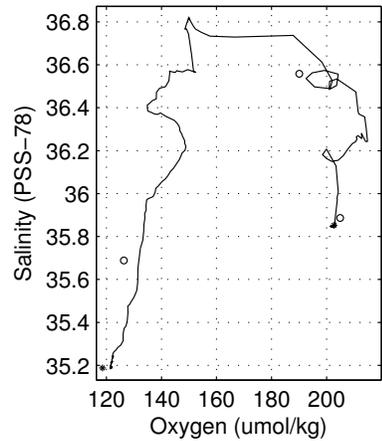
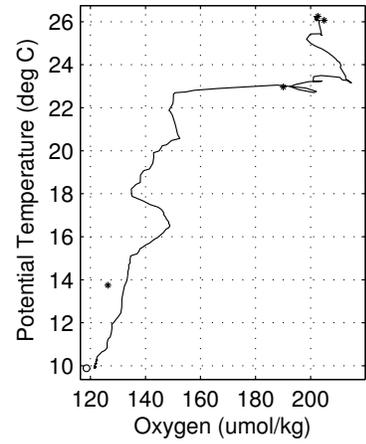
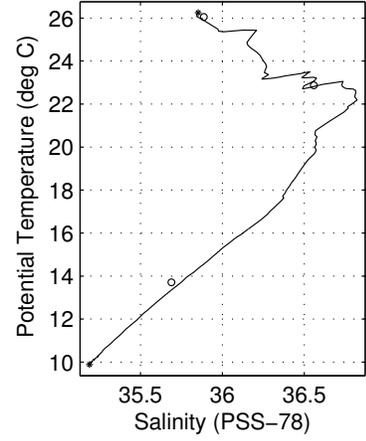
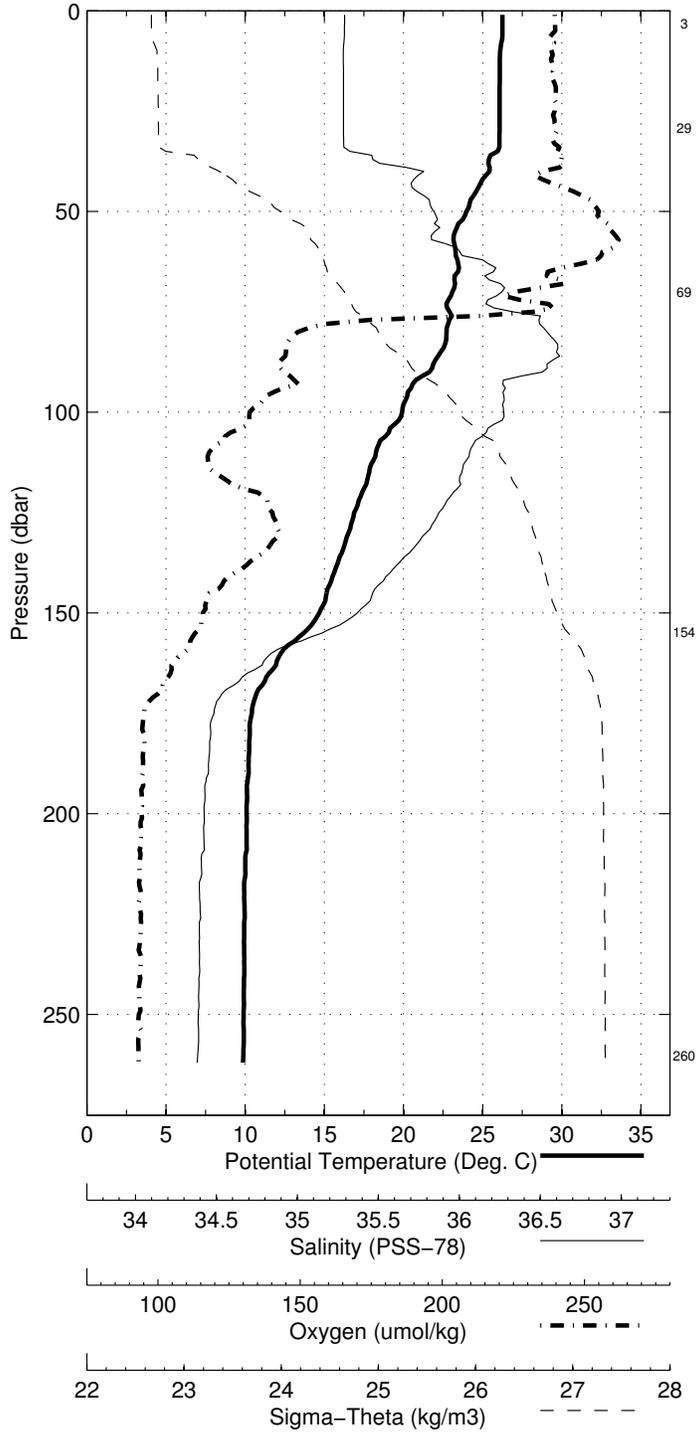


Abaco February - March 2012 R/V Brown  
 CTD Station 47 (CTD047)  
 Latitude 26.046N Longitude 79.932W  
 02-Mar-2012 18:02Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.251	26.251	35.850	202.5	0.004	23.596
10	26.102	26.100	35.844	201.8	0.043	23.639
20	26.077	26.072	35.844	202.7	0.085	23.648
30	26.070	26.064	35.845	202.8	0.128	23.651
50	23.983	23.973	36.254	211.1	0.204	24.599
75	22.929	22.913	36.613	198.3	0.280	25.183
100	19.935	19.916	36.570	143.0	0.340	25.983
125	16.910	16.890	36.277	147.4	0.383	26.521
150	14.708	14.686	35.907	133.9	0.419	26.741
200	10.120	10.096	35.213	121.9	0.473	27.102
250	9.928	9.899	35.186	121.4	0.523	27.115

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
260	2	9.916	9.886	35.188	118.6
155	3	13.730	13.708	35.689	126.3
70	4	22.885	22.870	36.559	190.1
29	6	26.057	26.051	35.887	204.9
3	8	26.252	26.251	35.853	202.7

Abaco February – March 2013 R/V Brown  
 CTD Station 47 (CTD047)  
 Latitude 26.046 N Longitude 79.932 W  
 02-Mar-2012 18:02 Z

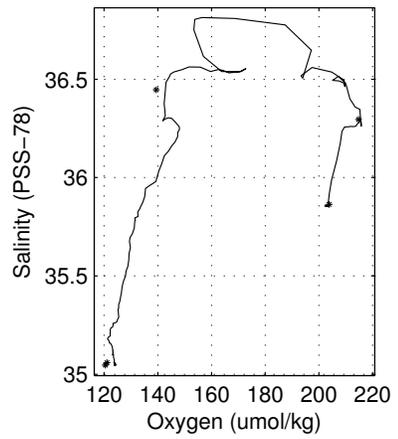
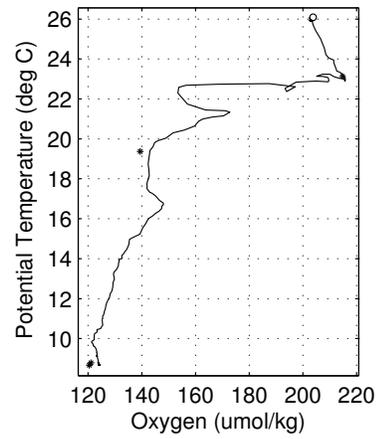
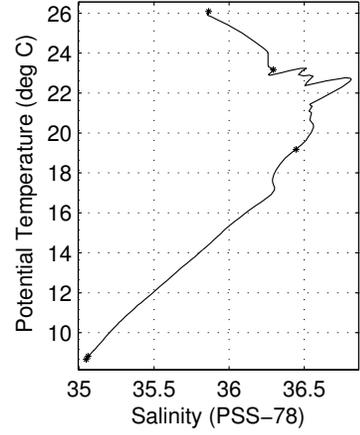
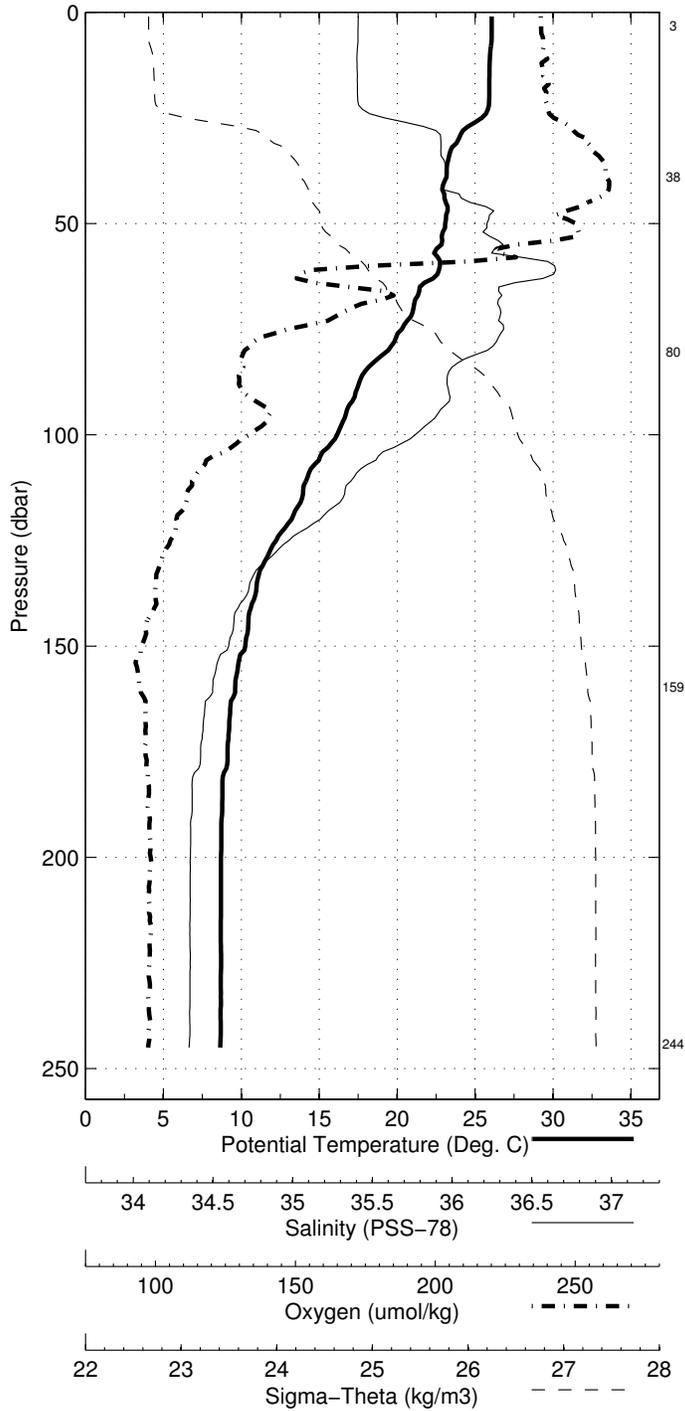


Abaco February - March 2012 R/V Brown  
 CTD Station 48 (CTD048)  
 Latitude 26.044N Longitude 80.000W  
 02-Mar-2012 19:38Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.066	26.065	35.861	202.1	0.004	23.663
10	25.954	25.951	35.855	202.9	0.042	23.694
20	25.908	25.903	35.858	202.9	0.084	23.711
30	23.951	23.945	36.259	211.4	0.122	24.612
50	23.090	23.080	36.482	209.1	0.183	25.035
75	20.319	20.304	36.563	151.7	0.247	25.873
100	16.158	16.142	36.136	144.0	0.290	26.589
125	12.254	12.237	35.527	128.2	0.322	26.953
150	10.274	10.257	35.236	122.5	0.348	27.092
200	8.713	8.692	35.050	124.3	0.394	27.207

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
244	2	8.689	8.663	35.047	120.5
160	3	8.836	8.819	35.059	121.1
80	4	19.190	19.175	36.446	139.4
39	6	23.177	23.169	36.296	214.8
3	8	26.095	26.094	35.864	203.7

Abaco February – March 2013 R/V Brown  
 CTD Station 48 (CTD048)  
 Latitude 26.044 N Longitude 80.000 W  
 02-Mar-2012 19:38 Z

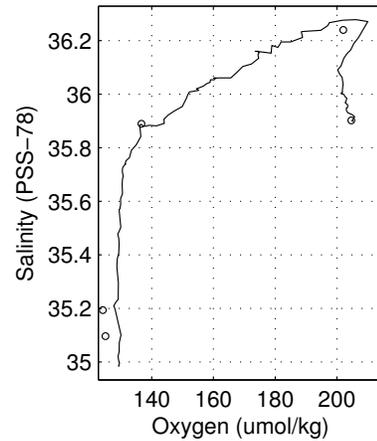
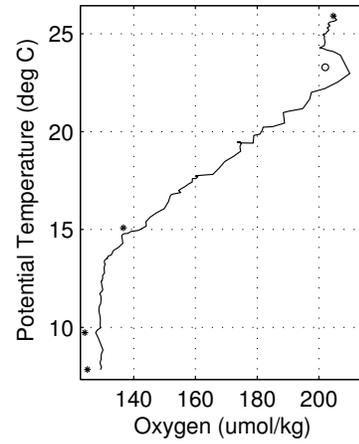
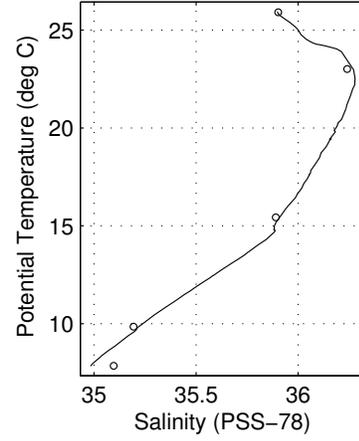
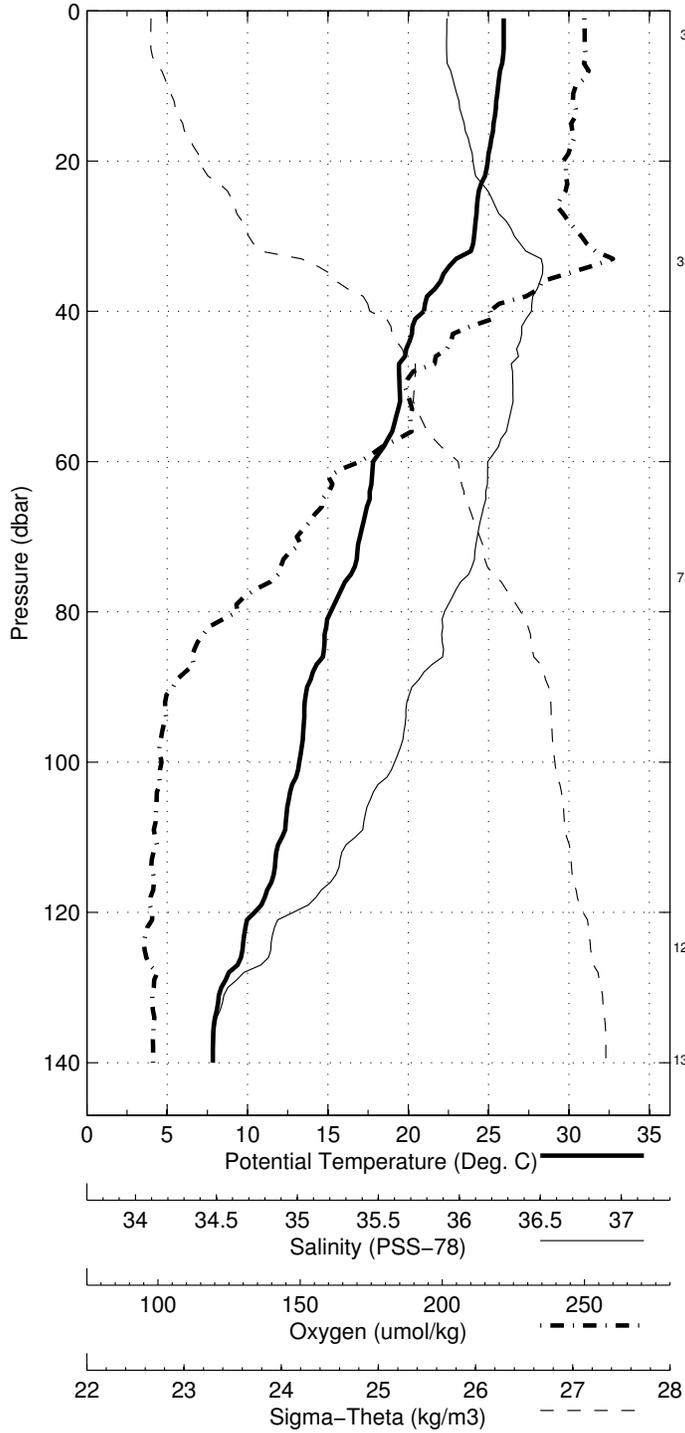


Abaco February - March 2012 R/V Brown  
 CTD Station 49 (CTD049)  
 Latitude 26.048N Longitude 80.063W  
 02-Mar-2012 20:49Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.941	25.941	35.901	205.0	0.004	23.732
10	25.599	25.596	35.931	203.5	0.041	23.862
20	24.954	24.950	36.004	201.3	0.080	24.116
30	24.108	24.101	36.167	204.5	0.116	24.495
50	19.470	19.461	36.161	173.5	0.168	25.789
75	16.453	16.441	35.987	151.3	0.216	26.405
100	13.236	13.222	35.695	130.8	0.248	26.886
125	9.704	9.690	35.207	127.8	0.275	27.167

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
140	2	7.857	7.843	35.096	125.0
125	3	9.856	9.842	35.193	124.1
75	4	15.441	15.429	35.890	136.6
33	6	23.017	23.010	36.240	202.1
3	8	25.914	25.913	35.903	204.7

Abaco February – March 2013 R/V Brown  
 CTD Station 49 (CTD049)  
 Latitude 26.048 N Longitude 80.063 W  
 02-Mar-2012 20:49 Z

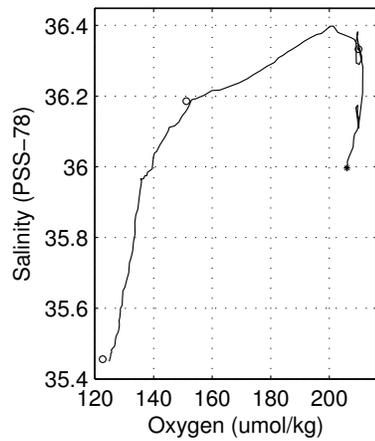
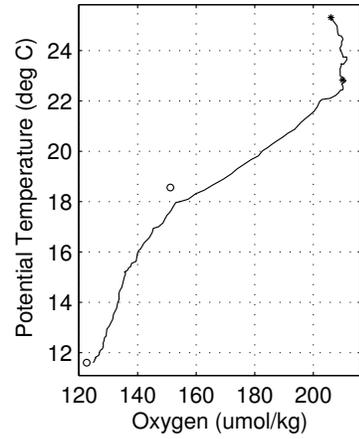
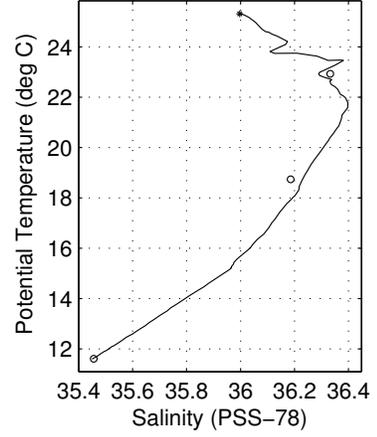
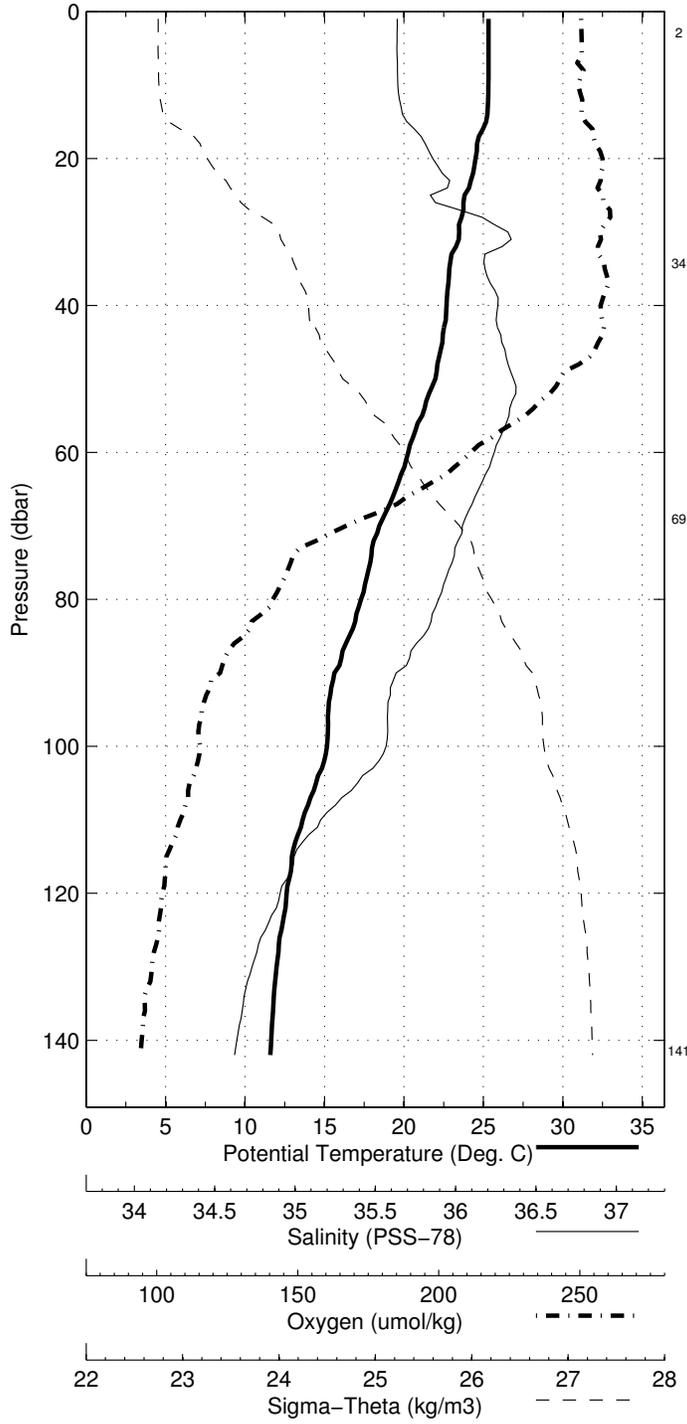


Abaco February - March 2012 R/V Brown  
 CTD Station 50 (CTD050)  
 Latitude 26.994N Longitude 79.935W  
 03-Mar-2012 03:53Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.326	25.326	35.998	206.1	0.004	23.996
10	25.318	25.316	36.000	205.5	0.039	24.000
20	24.508	24.504	36.118	210.0	0.077	24.337
30	23.480	23.474	36.371	209.5	0.110	24.835
50	21.990	21.980	36.390	202.2	0.169	25.280
75	17.895	17.882	36.183	152.5	0.224	26.208
100	15.174	15.159	35.960	135.9	0.262	26.677
125	12.303	12.286	35.554	128.3	0.293	26.964

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
141	2	11.627	11.609	35.456	122.6
69	3	18.747	18.735	36.186	151.2
34	4	22.933	22.926	36.333	209.9
3	6	25.317	25.317	35.997	206.0

Abaco February – March 2013 R/V Brown  
 CTD Station 50 (CTD050)  
 Latitude 26.994 N Longitude 79.935 W  
 03-Mar-2012 03:53 Z

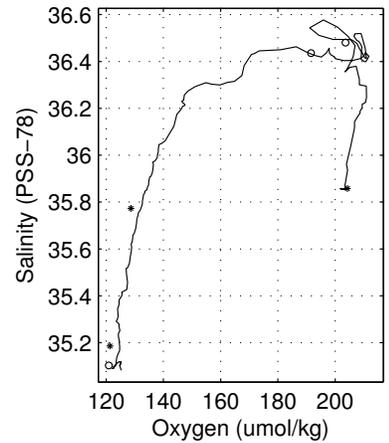
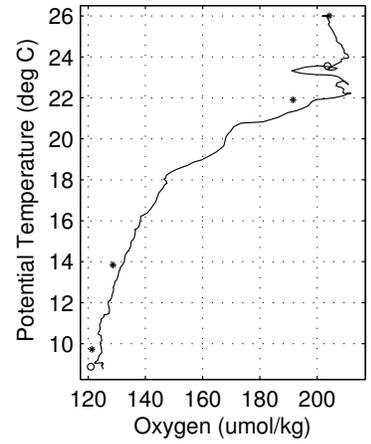
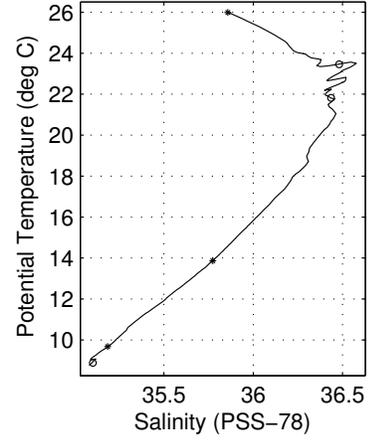
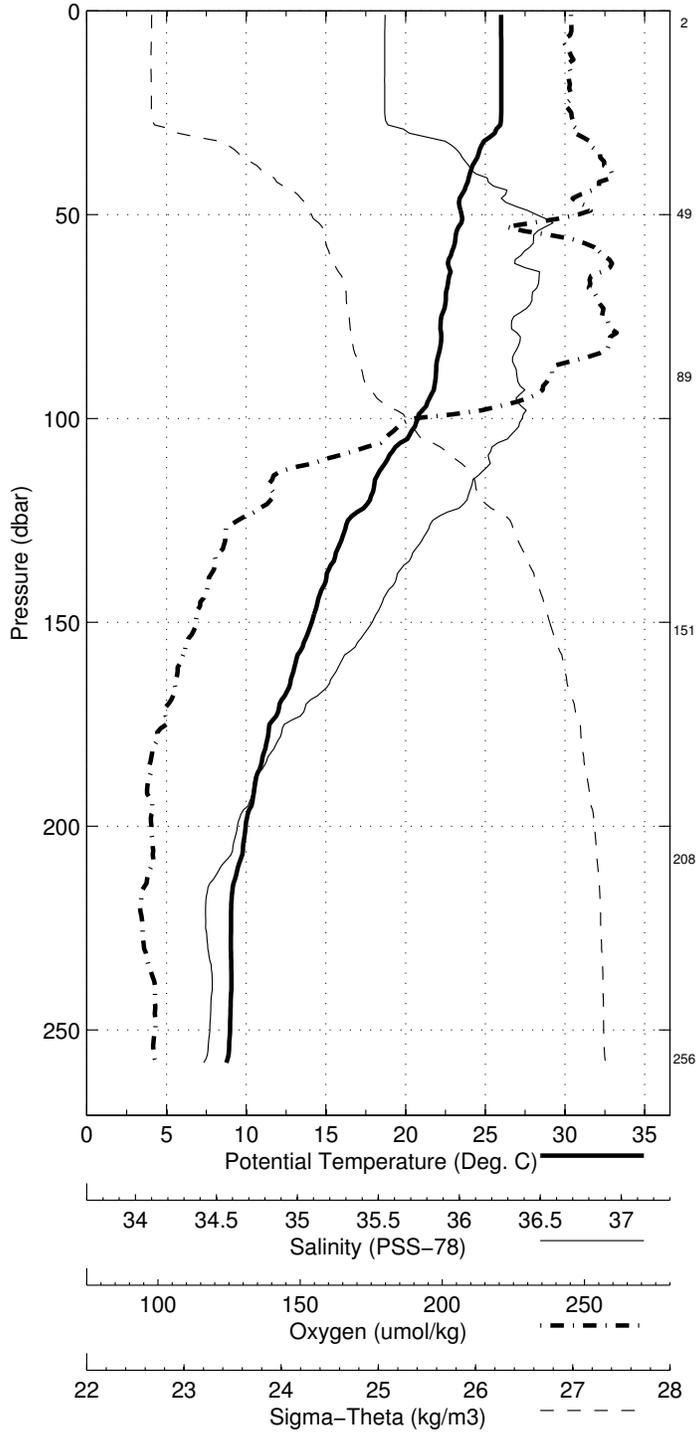


Abaco February - March 2012 R/V Brown  
 CTD Station 51 (CTD051)  
 Latitude 26.992N Longitude 79.867W  
 03-Mar-2012 05:45Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.993	25.993	35.859	203.2	0.004	23.684
10	26.007	26.004	35.857	202.9	0.042	23.679
20	26.001	25.997	35.857	203.2	0.084	23.681
30	25.593	25.586	35.962	204.0	0.126	23.889
50	23.518	23.507	36.507	204.5	0.193	24.929
75	22.253	22.238	36.410	209.0	0.265	25.222
100	20.787	20.768	36.445	173.5	0.331	25.658
125	16.403	16.383	36.062	140.6	0.380	26.476
150	14.134	14.112	35.803	132.7	0.416	26.784
200	9.984	9.960	35.226	124.4	0.471	27.135
250	9.012	8.985	35.108	125.1	0.517	27.205

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
257	2	8.910	8.882	35.103	121.0
208	3	9.701	9.677	35.186	121.3
152	4	13.889	13.868	35.773	128.6
90	6	21.838	21.820	36.436	191.6
50	8	23.468	23.457	36.481	203.6
3	9	25.991	25.990	35.858	204.3

Abaco February – March 2013 R/V Brown  
 CTD Station 51 (CTD051)  
 Latitude 26.992 N Longitude 79.867 W  
 03-Mar-2012 05:45 Z

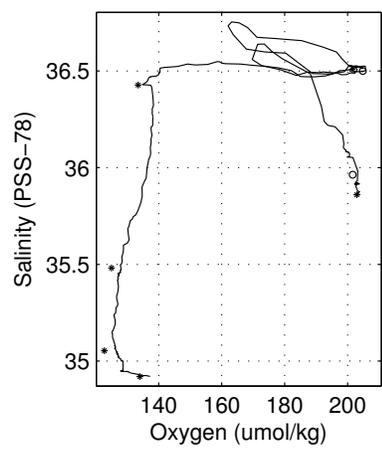
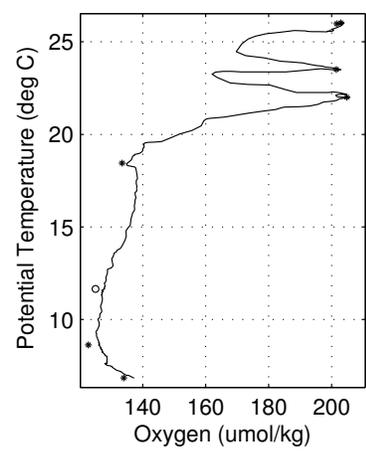
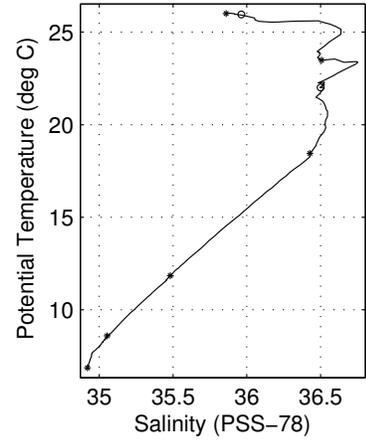
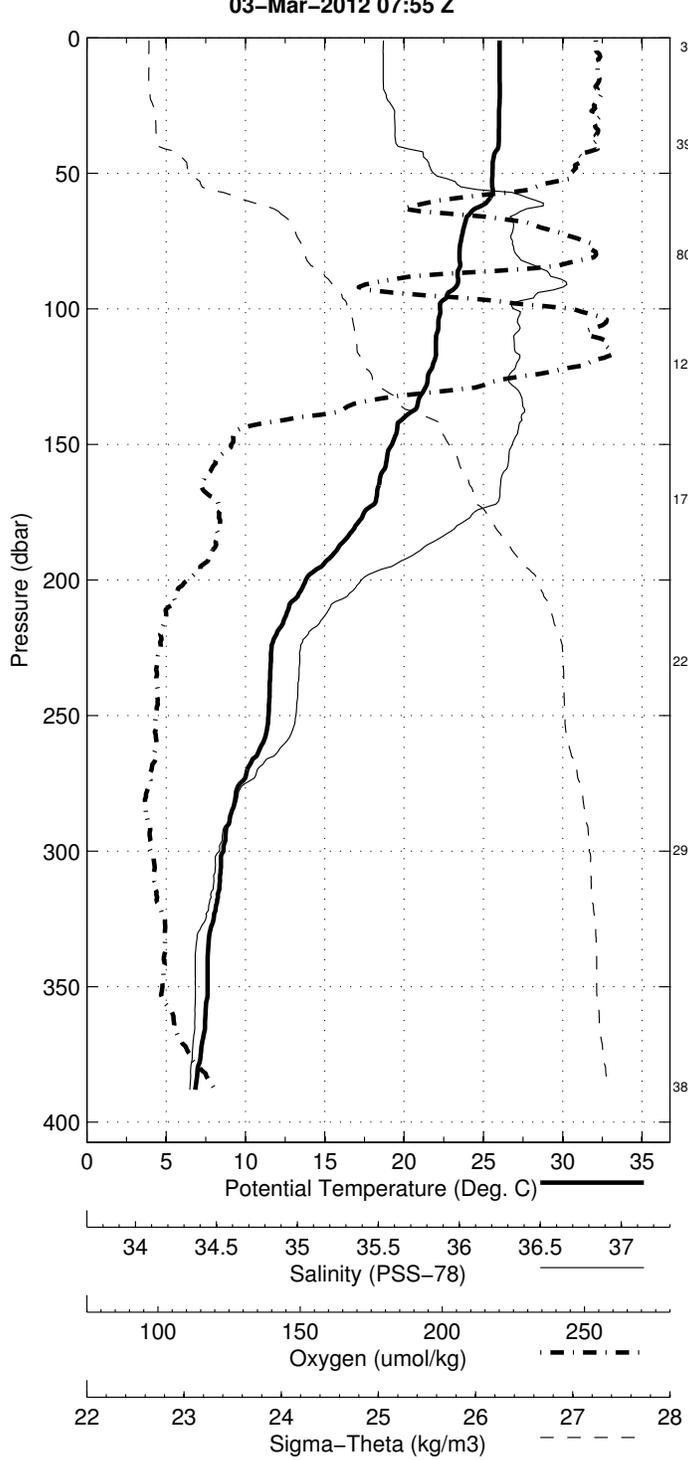


Abaco February - March 2012 R/V Brown  
 CTD Station 52 (CTD052)  
 Latitude 26.992N Longitude 79.782W  
 03-Mar-2012 07:55Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.023	26.023	35.862	202.9	0.004	23.676
10	26.026	26.024	35.861	203.8	0.042	23.676
20	26.031	26.027	35.869	203.0	0.084	23.681
30	25.988	25.982	35.917	203.1	0.126	23.731
50	25.581	25.570	36.106	198.6	0.208	24.002
75	23.597	23.582	36.490	200.9	0.293	24.894
100	22.287	22.267	36.496	199.0	0.365	25.279
125	21.516	21.492	36.470	189.7	0.431	25.478
150	19.271	19.244	36.489	140.1	0.487	26.097
200	13.835	13.806	35.755	132.6	0.570	26.812
250	11.487	11.455	35.436	127.1	0.627	27.032
300	8.650	8.618	35.065	126.1	0.675	27.230

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
387	2	6.893	6.856	34.920	134.0
300	3	8.621	8.589	35.053	122.7
230	4	11.864	11.834	35.481	125.0
170	6	18.480	18.450	36.427	133.4
120	8	22.032	22.008	36.500	204.8
80	9	23.503	23.486	36.507	201.5
39	10	25.961	25.952	35.963	201.6
3	14	26.009	26.008	35.860	202.9

Abaco February – March 2013 R/V Brown  
 CTD Station 52 (CTD052)  
 Latitude 26.992 N Longitude 79.782 W  
 03-Mar-2012 07:55 Z

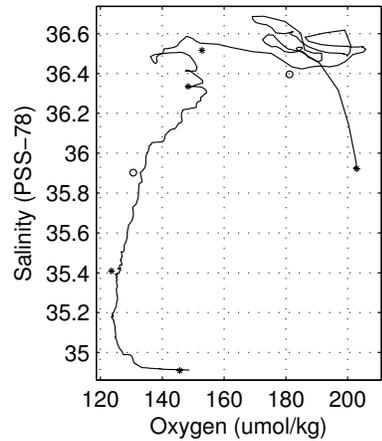
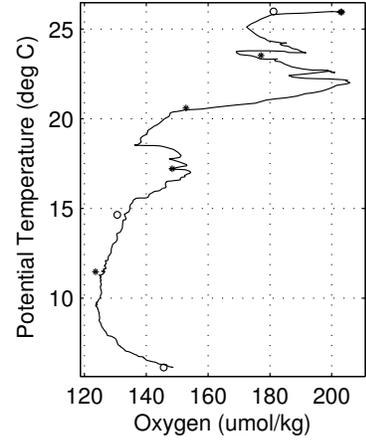
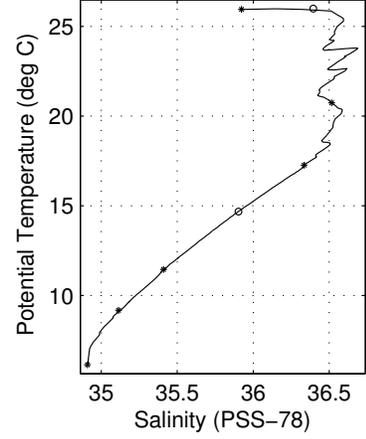
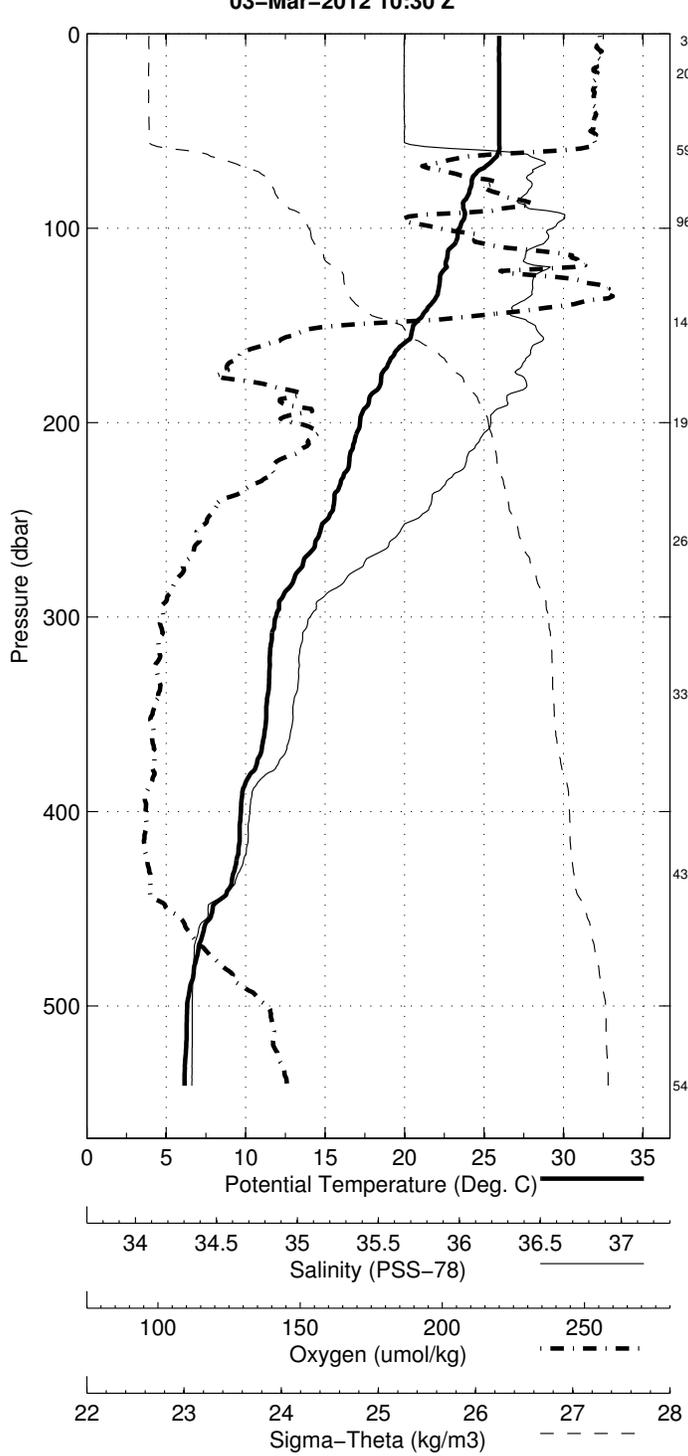


Abaco February - March 2012 R/V Brown  
 CTD Station 53 (CTD053)  
 Latitude 26.984N Longitude 79.684W  
 03-Mar-2012 10:30Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.949	25.949	35.924	203.6	0.004	23.747
10	25.948	25.945	35.923	203.2	0.041	23.747
20	25.956	25.951	35.922	203.2	0.083	23.745
30	25.957	25.950	35.923	202.7	0.125	23.745
50	25.958	25.946	35.924	201.9	0.208	23.748
75	24.246	24.230	36.511	183.9	0.301	24.717
100	23.460	23.439	36.629	175.5	0.379	25.042
125	22.254	22.229	36.539	195.5	0.450	25.323
150	20.571	20.542	36.547	157.9	0.514	25.797
200	17.216	17.183	36.335	149.7	0.607	26.495
250	15.125	15.086	35.972	134.7	0.683	26.703
300	11.932	11.892	35.476	126.8	0.746	26.980
400	9.742	9.696	35.189	124.0	0.855	27.151
500	6.357	6.312	34.914	145.2	0.942	27.444

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
541	2	6.189	6.141	34.909	145.7
432	3	9.224	9.175	35.114	103.7
340	4	11.495	11.451	35.409	123.6
261	6	14.714	14.675	35.903	130.6
200	8	17.296	17.263	36.335	148.4
148	9	20.774	20.745	36.516	152.8
97	10	23.609	23.677	-999.000	-999.0
60	14	26.002	25.988	36.395	181.2
20	15	25.948	25.944	35.922	202.9
3	16	25.935	25.937	-999.000	-999.0

Abaco February – March 2013 R/V Brown  
 CTD Station 53 (CTD053)  
 Latitude 26.984 N Longitude 79.684 W  
 03-Mar-2012 10:30 Z

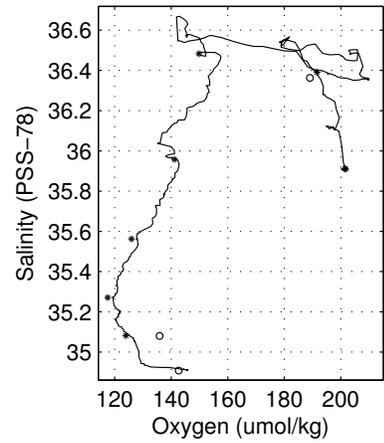
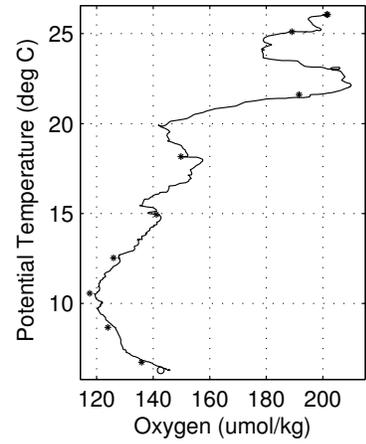
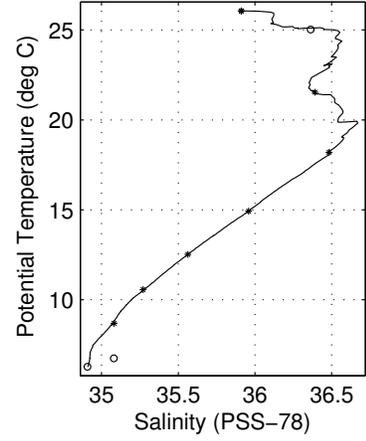
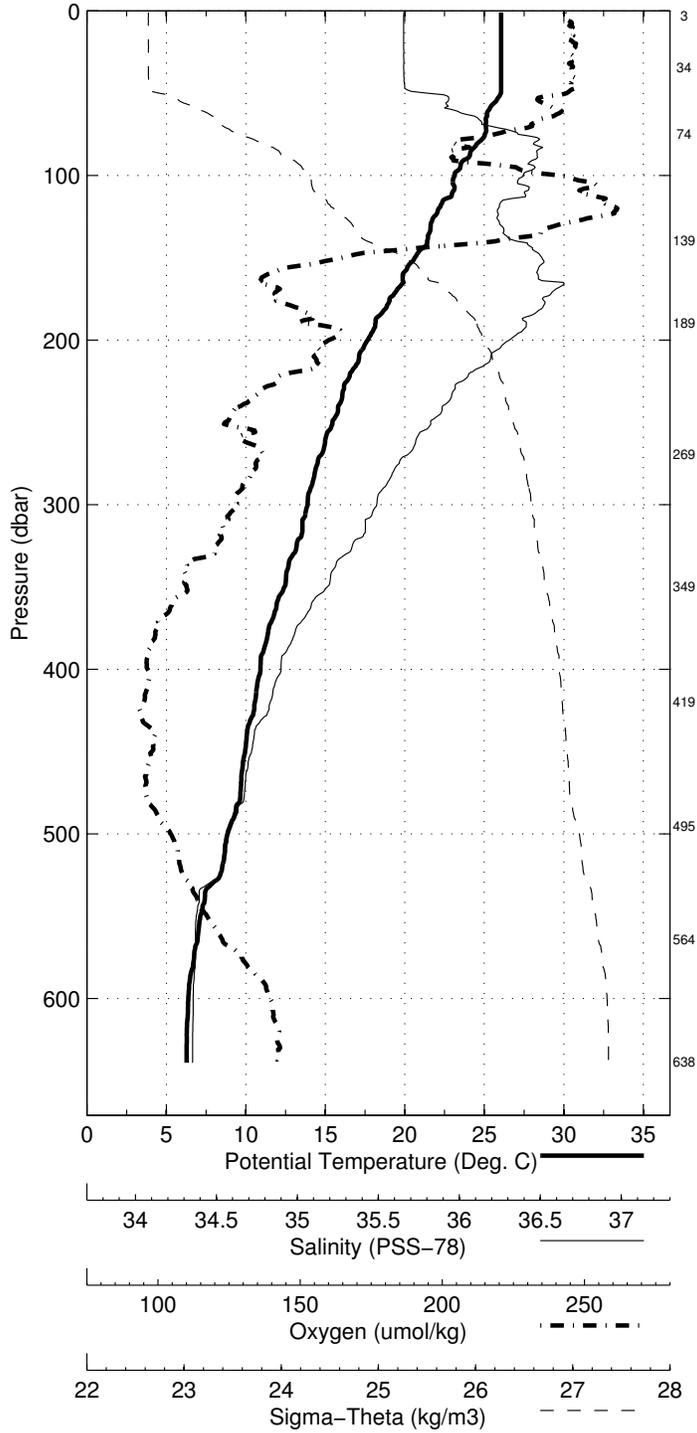


Abaco February - March 2012 R/V Brown  
 CTD Station 54 (CTD054)  
 Latitude 26.988N Longitude 79.617W  
 03-Mar-2012 12:43Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.058	26.057	35.911	200.0	0.004	23.703
10	26.056	26.053	35.910	201.5	0.042	23.703
20	26.057	26.053	35.910	202.2	0.084	23.703
30	26.064	26.057	35.911	201.1	0.126	23.703
50	26.057	26.046	36.018	200.4	0.210	23.787
75	25.042	25.026	36.452	186.7	0.304	24.431
100	23.160	23.139	36.480	199.2	0.384	25.016
125	21.872	21.847	36.353	206.5	0.456	25.289
150	20.652	20.623	36.564	157.7	0.519	25.788
200	17.702	17.668	36.410	155.2	0.614	26.435
250	15.485	15.446	36.037	135.5	0.691	26.672
300	13.926	13.882	35.782	137.3	0.759	26.817
400	10.974	10.924	35.330	120.7	0.879	27.046
500	8.900	8.845	35.084	125.1	0.984	27.209
600	6.437	6.381	34.914	144.1	1.067	27.435

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
638	2	6.336	6.278	34.908	142.7
564	3	6.794	6.741	35.080	135.9
495	4	8.746	8.692	35.082	124.0
420	6	10.614	10.563	35.271	117.6
350	8	12.565	12.517	35.562	126.0
269	9	14.967	14.926	35.958	141.2
190	10	18.224	18.191	36.483	149.8
140	14	21.564	21.537	36.391	191.6
75	15	25.037	25.020	36.363	189.1
34	16	26.061	26.053	35.912	201.4
3	18	26.056	26.056	35.910	201.7

Abaco February – March 2013 R/V Brown  
 CTD Station 54 (CTD054)  
 Latitude 26.988 N Longitude 79.617 W  
 03-Mar-2012 12:43 Z

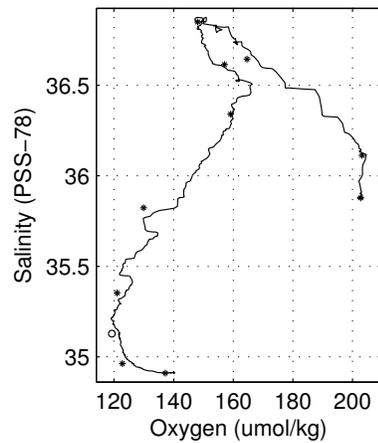
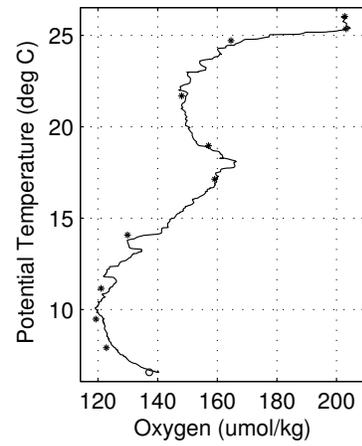
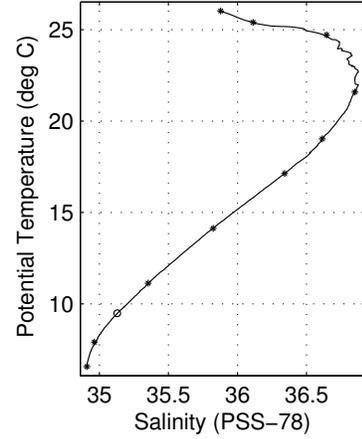
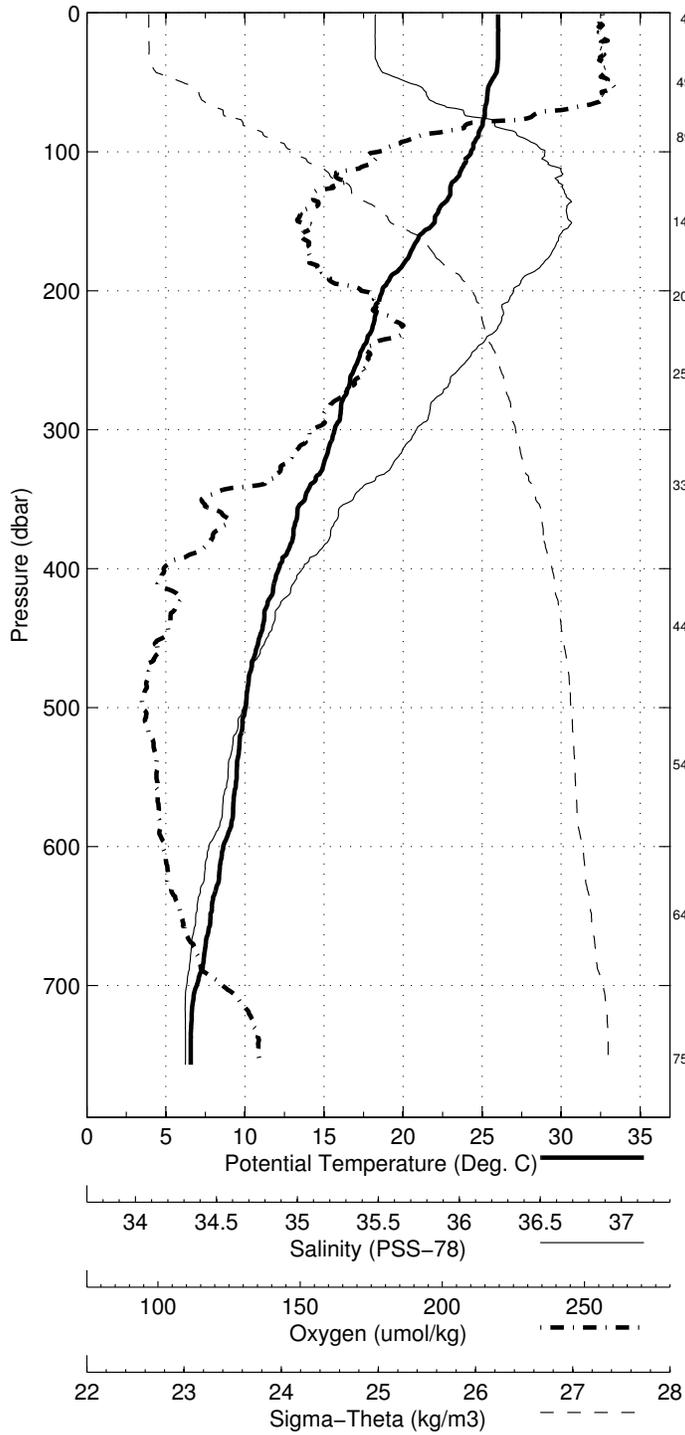


Abaco February - March 2012 R/V Brown  
 CTD Station 55 (CTD055)  
 Latitude 26.985N Longitude 79.501W  
 03-Mar-2012 15:18Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.018	26.017	35.878	202.5	0.004	23.691
10	26.016	26.014	35.877	201.7	0.042	23.691
20	26.014	26.010	35.877	203.4	0.084	23.692
30	26.016	26.009	35.878	202.7	0.126	23.693
50	25.551	25.540	36.044	203.3	0.209	23.965
75	25.178	25.162	36.376	189.5	0.303	24.332
100	24.320	24.298	36.740	161.8	0.387	24.870
125	23.026	23.000	36.828	153.4	0.459	25.320
150	22.032	22.002	36.870	147.2	0.523	25.639
200	18.729	18.694	36.582	158.7	0.626	26.310
250	17.199	17.157	36.345	159.8	0.711	26.509
300	15.718	15.671	36.087	150.1	0.787	26.659
400	12.202	12.148	35.508	122.9	0.921	26.955
500	10.100	10.041	35.207	119.1	1.033	27.107
600	8.692	8.627	35.031	123.1	1.136	27.202
700	7.016	6.948	34.918	133.6	1.227	27.362

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
753	2	6.644	6.573	34.910	137.2
649	3	7.977	7.910	34.963	122.8
541	4	9.551	9.489	35.128	119.3
442	6	11.187	11.131	35.353	121.1
340	8	14.181	14.131	35.823	129.9
260	9	17.172	17.129	36.341	159.1
204	10	19.065	19.028	36.614	157.0
150	14	21.619	21.589	36.850	148.1
90	15	24.731	24.711	36.644	164.6
50	16	25.412	25.401	36.113	203.2
4	18	26.028	26.027	35.878	202.7

Abaco February – March 2013 R/V Brown  
 CTD Station 55 (CTD055)  
 Latitude 26.985 N Longitude 79.501 W  
 03-Mar-2012 15:18 Z

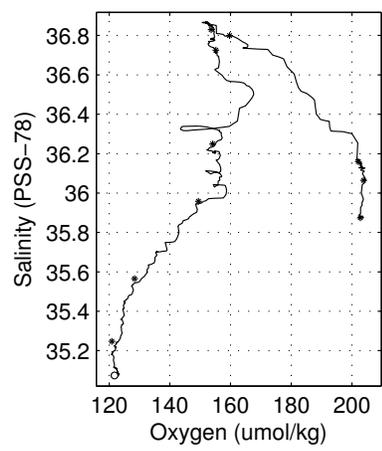
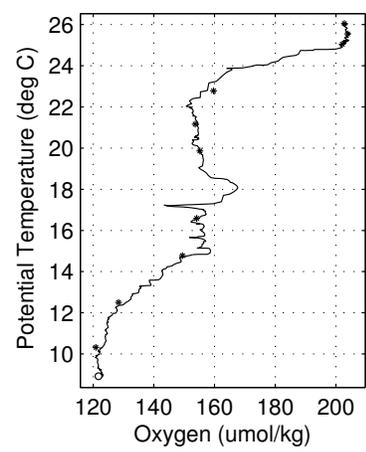
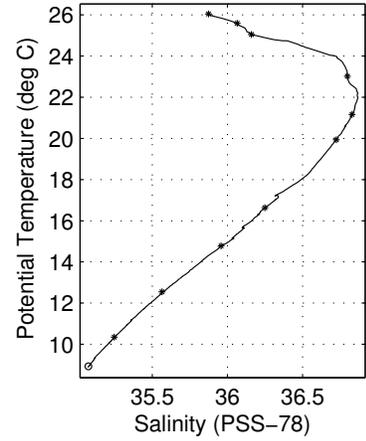
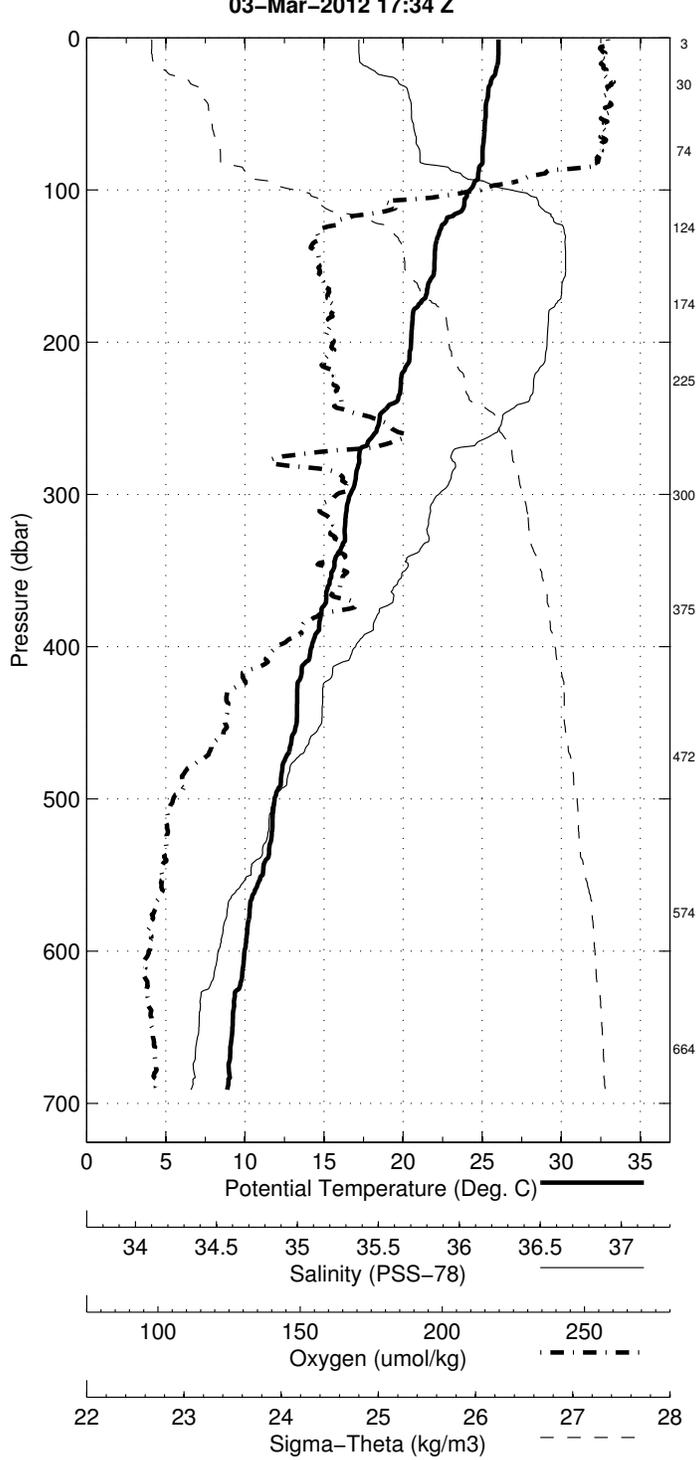


Abaco February - March 2012 R/V Brown  
 CTD Station 56 (CTD056)  
 Latitude 26.989N Longitude 79.382W  
 03-Mar-2012 17:34Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	26.028	26.028	35.877	203.6	0.004	23.686
10	26.038	26.035	35.876	203.2	0.042	23.683
20	25.907	25.903	35.926	202.9	0.084	23.763
30	25.546	25.539	36.068	204.2	0.124	23.982
50	25.234	25.223	36.129	203.2	0.201	24.126
75	25.044	25.027	36.168	202.3	0.295	24.216
100	24.247	24.226	36.605	181.0	0.383	24.790
125	22.424	22.399	36.858	152.8	0.455	25.517
150	22.013	21.983	36.868	152.3	0.515	25.643
200	20.543	20.505	36.779	154.7	0.626	25.984
250	18.565	18.521	36.565	161.9	0.725	26.341
300	16.711	16.662	36.258	155.3	0.808	26.561
400	14.296	14.237	35.860	144.4	0.954	26.802
500	11.940	11.874	35.466	126.1	1.083	26.976
600	10.043	9.972	35.201	121.7	1.197	27.114

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
664	2	8.999	8.924	35.074	121.7
575	3	10.413	10.343	35.246	120.9
472	4	12.612	12.547	35.565	128.3
376	6	14.837	14.780	35.958	149.4
300	8	16.685	16.636	36.249	154.1
225	9	19.980	19.938	36.725	155.2
175	10	21.198	21.164	36.830	153.6
125	14	23.041	23.015	36.799	159.7
74	15	25.066	25.050	36.160	202.1
30	16	25.597	25.590	36.065	203.9
4	18	26.050	26.049	35.875	202.8

Abaco February – March 2013 R/V Brown  
 CTD Station 56 (CTD056)  
 Latitude 26.989 N Longitude 79.382 W  
 03-Mar-2012 17:34 Z

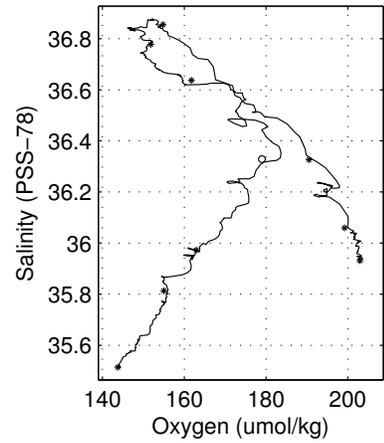
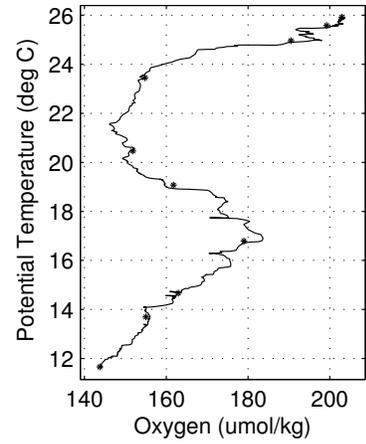
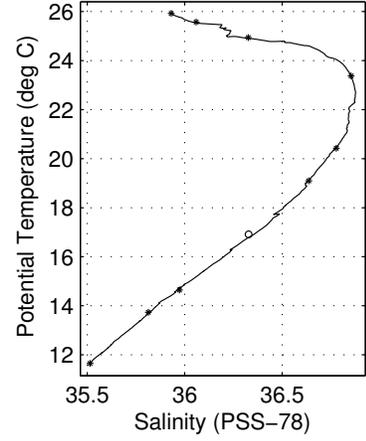
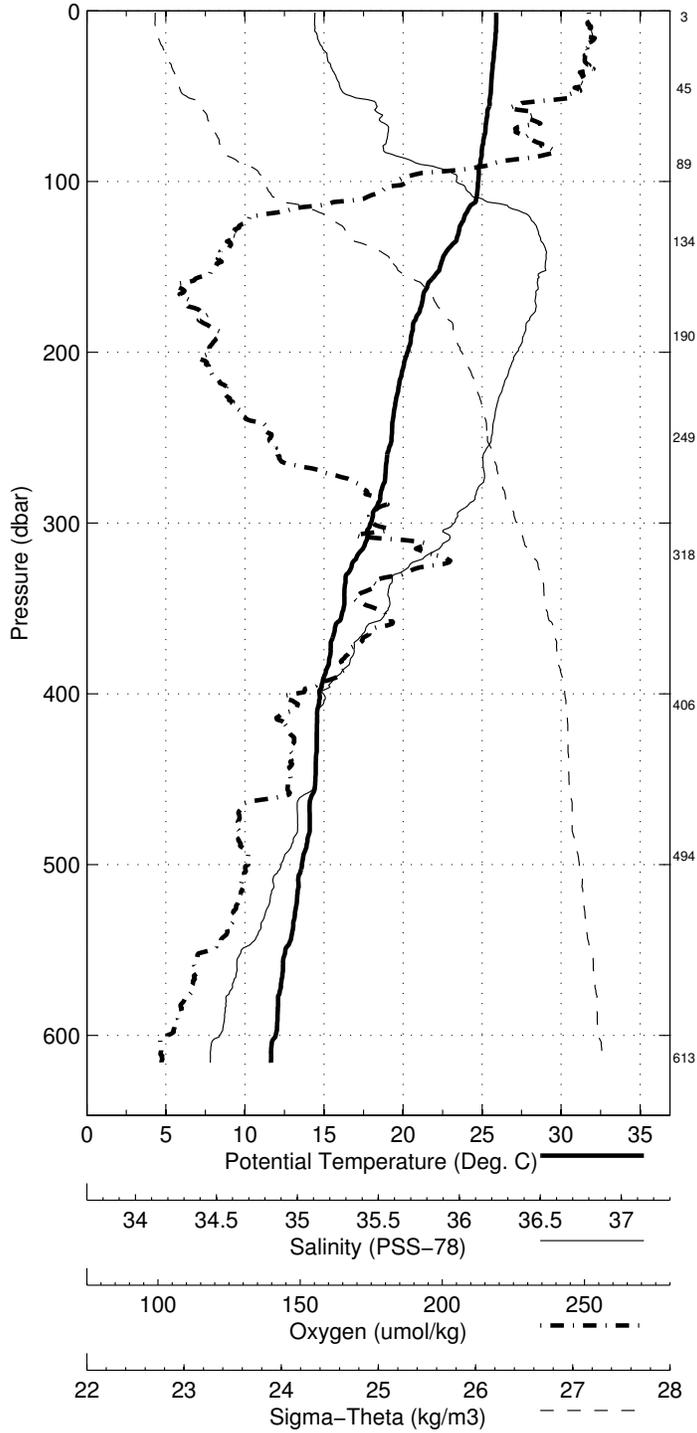


Abaco February - March 2012 R/V Brown  
 CTD Station 57 (CTD057)  
 Latitude 26.992N Longitude 79.287W  
 03-Mar-2012 19:24Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.892	25.892	35.939	202.6	0.004	23.776
10	25.890	25.887	35.939	202.7	0.041	23.777
20	25.810	25.806	35.961	202.1	0.082	23.819
30	25.712	25.705	35.993	202.1	0.123	23.875
50	25.527	25.516	36.085	200.1	0.202	24.003
75	25.115	25.099	36.231	194.6	0.297	24.242
100	24.776	24.754	36.511	177.3	0.386	24.559
125	23.700	23.673	36.831	155.2	0.465	25.125
150	22.363	22.333	36.872	151.6	0.532	25.546
200	20.317	20.280	36.757	150.9	0.643	26.028
250	19.317	19.272	36.654	159.1	0.740	26.215
300	18.001	17.948	36.504	173.1	0.830	26.437
400	14.781	14.720	35.973	162.3	0.981	26.784
500	13.682	13.609	35.803	156.0	1.117	26.890
600	12.027	11.947	35.553	144.9	1.240	27.029

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
613	2	11.733	11.652	35.514	143.7
495	3	13.807	13.735	35.814	155.0
406	4	14.703	14.641	35.973	162.9
319	6	16.964	16.911	36.329	179.0
250	8	19.142	19.097	36.637	161.8
191	9	20.464	20.428	36.778	151.8
135	10	23.405	23.377	36.854	154.8
90	14	24.960	24.940	36.326	190.5
45	15	25.582	25.572	36.059	199.2
3	16	25.924	25.923	35.931	203.0

Abaco February – March 2013 R/V Brown  
 CTD Station 57 (CTD057)  
 Latitude 26.992 N Longitude 79.287 W  
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Abaco February - March 2012 R/V Brown  
 CTD Station 58 (CTD058)  
 Latitude 26.998N Longitude 79.201W  
 03-Mar-2012 20:59Z

Pressure dbar	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$	DynHt $\text{m}^2\cdot\text{s}^{-2}$	SigT $\text{kg}\cdot\text{m}^{-3}$
1	25.821	25.820	35.980	201.9	0.004	23.829
10	25.815	25.812	35.978	202.3	0.041	23.830
20	25.804	25.800	35.977	202.4	0.081	23.833
30	25.783	25.776	35.976	203.1	0.122	23.840
50	25.771	25.760	35.976	202.4	0.203	23.845
75	25.616	25.599	36.080	199.4	0.305	23.974
100	23.919	23.898	36.664	173.7	0.389	24.932
125	22.808	22.783	36.750	166.9	0.462	25.325
150	22.007	21.977	36.852	167.7	0.526	25.632
200	21.020	20.981	36.831	167.3	0.642	25.894
250	19.382	19.337	36.701	178.3	0.740	26.235
300	18.702	18.648	36.602	176.9	0.832	26.336
400	15.554	15.491	36.109	170.5	0.992	26.718

Pressure dbar	Niskin	Temp90 °C	PoTemp90 °C	Salinity PSS-78	Oxygen $\mu\text{mol}\cdot\text{kg}^{-1}$
478	2	14.770	14.698	35.923	159.0
381	3	15.941	15.880	36.172	172.9
311	4	18.245	18.191	35.965	173.0
239	6	19.349	19.567	-999.000	-999.0
170	8	21.740	21.707	36.851	164.3
110	9	23.623	23.600	36.651	198.1
80	10	25.265	25.248	36.240	196.2
35	14	25.791	25.783	35.977	185.2
3	15	25.807	25.807	35.977	203.0

Abaco February – March 2013 R/V Brown  
 CTD Station 58 (CTD058)  
 Latitude 26.998 N Longitude 79.201 W  
 03-Mar-2012 20:59 Z

